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U.S. Department of Agriculture

**OUR MOTTO:** *We not only test our seeds but we sell only those that have stood the test.*

NEW PRICES ON  
**FRUIT TREES  
PLANTS  
SEEDS, Etc.**

**JACOB KAUFMANN CO.  
SEEDSMEN**

Fertilizers, Spraying Materials, Poultry Supplies

Birds

SEATTLE, WASH.

Cages

## INTRODUCTION

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We again extend our sincere thanks to our friends and customers for their continued and increased patronage.

In mailing you our catalogue, we know that we must give you as nearly as possible the same service as if you were in our store. Our motto—*We not only test our seeds, but sell only those which have stood the test.* All seeds that we offer for sale must be up to the high standard of purity and germination which we have set as our guide to be governed by. Which no doubt explains the almost universal satisfaction among our customers who have traded with us in the past.

Success with seeds, bulbs, and plants, depends as much upon the proper planting, soil, water, weather and other conditions as upon the seed. We exercise every care in the selection of the seeds we offer for sale. We will not knowingly send out anything but seed of the highest quality and germination.

Most of the failures with seeds, plants and bulbs are due to causes entirely beyond our control, such as unfavorable weather or soil conditions, too deep or too shallow planting, etc., which renders it impossible for us to guarantee success.

The JACOB KAUFMANN CO., in common with other reliable seedsmen, sell their goods subject to the following disclaimer:

We give no warranty, express or implied, as to description, quality, productiveness or any other of any seeds, bulbs or plants sent out, and will not be in any way responsible for the crop.

If the purchaser does not accept the goods on these terms, they are to be returned at once to us.

### IMPORTANT

When sending money to cover parcel post, always allow for one pound more than weight of goods purchased, as package when ready for mailing will weigh more than the pound.

Crosbys' Egyptian,  
The Most Popular  
Early Beet

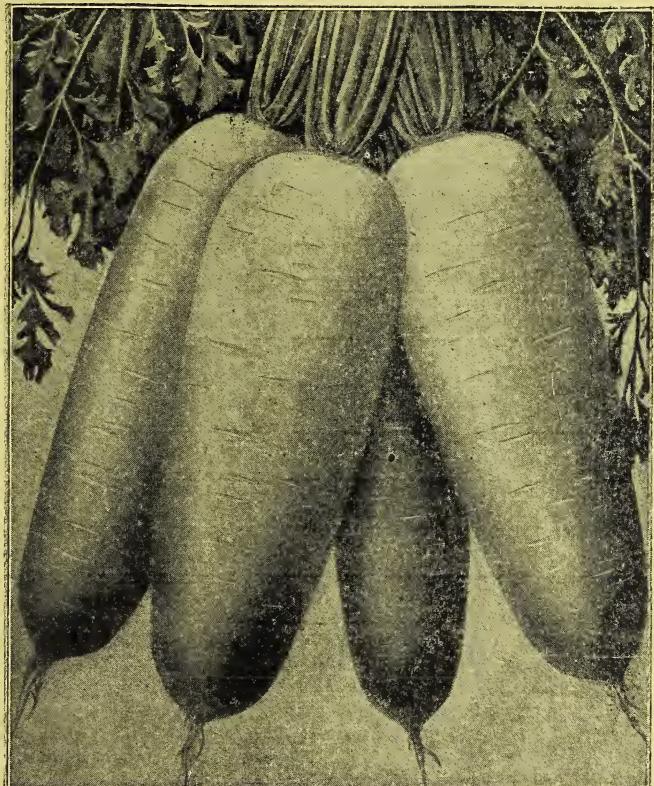


CROSBY'S  
EGYPTIAN

Our strain of this excellent beet is always maintained at a standard of such reliability that it will yield the best results and give the greatest satisfaction to our patrons.

This has been selected to maintain the best results for the market as well as for house gardens. It is always uniformly early, and a

beet that will be appreciated for the early gardens. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 1lb., 40c; lb., \$1.00.



In offering to the public the New York Carrot, we do so with utmost confidence.

It was placed with several market gardeners the past seasons, whose reports are flattering. Tops of medium size, roots cylindrical, smooth bright orange becoming yellow in the center, without core. For extra sweetness this is all by itself. Pkt., 5c; per oz., 15c;  $\frac{1}{4}$  lb., 50c; lb., \$1.50

## NEW YORK HEAD LETTUCE



This is the mammoth head lettuce so popular in California from whence it is shipped to the Northern market, arriving in splendid condition. The immense heads are solid, heavy, beautifully blanched to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet.

Pkt., 10c; oz.,  
40c;  $\frac{1}{4}$  lb., \$1.50;  
lb., \$5.00.

## ITALIAN RED ONION

Is globular in form, an enormous producer, often weighing from three to five pounds. Flavor is very mild, in fact, surpassed by no other onion. It is very prolific and can be grown successfully on any soil, provided it receives the required irrigation.

The crop has never known to be a failure, and will always produce from one-third to one-half more than any other onion. **In packets only, 25c each.**

## GOLDEN CREAM SWEET CORN

Golden Bantam and Country Gentlemen combined—this is a late sweet corn, possessing the quality of "Golden Bantam" in conjunction with Country Gentlemen. The kernels being long and slender, and the ears somewhat larger than either of the parent stocks themselves. **Pkt., 10c; lb., 50c.**

## OREGON BALL HEAD CABBAGE

The best main crop Cabbage; hard as a rock and holds its color after cutting better than other Cabbages, a fine shipper and fine retail Cabbage. It will mature heads in soil where other varieties fail. A western production and a winner. **Pkt., 10c; oz., 65c.**

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The Jacob Kaufmann Co. Standard in Seeds is the highest it is possible to attain today. And yet we aim for further betterment.

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**A 100-lb. BAG OF HIGH GRADE COMMERCIAL FERTILIZER**—Will contain more soluble and available food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than two tons of manure, and no weed seeds to worry over.

## WHEN AND HOW TO ORDER

**By following the instructions** herein given it will aid the purchaser as well as ourselves in filling orders promptly.

**Order early** and you will have the seeds at hand when you are ready to plant, and you are sure of getting the varieties you desire before stock is sold out, which happens in some sorts every season.

**Prices**—The prices are net, and do not include free transit except for seeds in packets. Ounces and pound vegetable seeds to Canada, 16 cents per pound.

Prices of large-sized seeds like Peas, Beans, Corn, etc., and put up in 10c or 15c packages do not include free transit.

In some instances the prices for large quantities may fluctuate according to market. We invite your communication to obtain our best prices at the time of corresponding.

**Name and Address**—Be sure to sign your name and address on every order. We often receive orders without name or address, and it is impossible to always trace them. If you do not receive your order in a reasonable time notify us by sending a duplicate, stating the amount inclosed. We aim to forward all orders same or next day after receipt.

Remittance should be made by Post Office money order, bank draft or express order. If sent in any other way it is at sender's risk. We accept postage stamps if proper care is taken to prevent adhesion. Personal cheques, especially for small amounts, are less desirable, and 15c extra to cover cost of collecting through bank should always be added to the amount.

**C. O. D. Parcels** can be sent only to money order offices. In addition to the amount of the regular postage, 10c extra for collection must be added.

**Market Gardeners and Retailers** should ask us for special prices which will be gladly furnished. Such requests should always be written on business letterheads or else proof should be furnished that querist is entitled to such reduced prices.

## DOMESTIC PARCEL POST RATES WHAT TO ORDER

**On Seeds, Plants, Bulbs, Roots, Books, Tools, etc., within the United States  
and Possessions**

	Each additional		
	First pound	pound or	fraction
Local Delivery—Seattle, only .....	5c.		½c.
First Zone—within 50 miles of Seattle, Wash.....	5c.		1c.
Second Zone—within 50 to 150 miles of Seattle, Wash.....	5c.		1c.
Third Zone—within 150 to 300 miles of Seattle, Wash.....	6c.		2c.
Fourth Zone—within 300 to 600 miles of Seattle, Wash.....	7c.		4c.
Fifth Zone—within 600 to 1,000 miles of Seattle, Wash.....	8c		6c.
Sixth Zone—within 1,000 and 1,400 miles of Seattle, Wash.....	9c.		8c.
Seventh Zone—within 1,400 and 1,800 miles of Seattle, Wash.....	11c.		10c.
Eighth Zone—All over 1,800 miles of Seattle, Wash.....	12c.		12c.

**FOR PARCELS WEIGHING 8 OUNCES OR LESS** containing seeds, bulbs or books only, the rate of postage to all zones is 1 cent for two ounces or fraction. (Over 8 ounces the parcel post rates apply).

**FOR PARCELS CONTAINING FOURTH CLASS MATTER**—Other than the above—up to four ounces is permitted to all zones at 1 cent per ounce. (Over 4 ounces the above zone rates apply).

Five cents insurance up to \$25.00; 10c insurance from \$25.00 to \$50.00.

On parcels costing over 25c postage, a war duty of 1c has to be paid; from 26c to 50c parcels, 2c, and for each additional 25c the war duty is 1c. Please don't forget to enclose this with your remittance.

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If you have no use for this Catalogue, kindly hand to a NEIGHBOR OR FRIEND.

## ARTICHOKE

**Green Globe**—Are cultivated for their flower heads. Pkt., 10c; oz., 50c.  
**Jerusalem Tubers**—Grown for stock feed. 10c lb.; 50 lbs., 6c lb.

## ASPARAGUS

1 oz. to 500 plants; 1 lb. per acre  
**Conover's Colossal**—The standard variety. Pkt., 5c oz., 20c.  
**Columbia Mammoth White**—A superior variety. Pkt. 5c; oz., 20c.  
**Palmetto**—Early, prolific, bright green. Pkt., 5c; oz., 20c.

## BEANS—DWARF WAX

Pkt., 10c lb., 30c.

**Culture**—After all danger of frost is over, plant in drills 2 feet apart and 3 inches apart in the drills, 2 inches deep. Hoe often to keep down the weeds.

If you want beans of good rich quality, if you want a garden better than the average, if you want full pods of more than average size use Farmogerm.

Farmogerm aids the soil in feeding the plants and furnishes the element of Nitrogen which the plant needs most, and which is very likely to be lacking in varying degrees in your soil.

Farmogerm will make your plants stronger, your soil richer for later purposes, your quality better, the expense is small the returns greater.

**Black Wax**—Pods fairly long, brittle and stringless; clear yellowish-white.

**Davis White Wax**—Rustless and immensely productive. Very hardy and one of the best for market gardeners. The dry beans are kidney shaped, clear white, and a favorite for baking and canning.

**Detroit Wax**—Excelling in some respects any other wax variety. Pods flat, good length and very broad.

**Flagelot Wax**—Flat pods of large size, stringless, very meaty and fine flavor.

**Golden Wax**—Pods long, nearly straight, broad and flat, and golden yellow; improved strain.

**Golden Cluster Wax**—Early long stringless, fine quality pods in clusters, white seeded.

**Wardwell's Kidney Wax**—A strong growing vine, long, flat and purely waxy pods, brittle and stringless, later than the Golden Wax, seed kidney shape.

## BEANS— DWARF GREEN PODDED

Pkt., 10c; lb., 30c.

**Burpee's Stringless**—One of the best green-podded varieties, pods round, tender brittle and stringless.

**Broad Windsor**—(English Horse Bean). Makes a good green shell bean, very hardy, will withstand considerable frost.

**Canadian Wonder**—A fine green shelled variety, producing pods 10 to 12 inches long, in great abundance.

**Early Six Weeks**—A long green-podded variety; plants strong and vigorous, a good sort.

**Horticultural Cranberry**—Used as a green snap or shell bean, a standard sort.

**Red Valentine**—Round, meaty pods; very early and practically stringless.

**Refugee or 1000 to 1**—Vines large and spreading; very prolific; a late sort, excellent for canning.

**BURPEE'S BUSH LIMA**—Beans as large and as fine in quality as the pole varieties. It is also a heavy yielder.

Pkt., 10c; lb., 30c.

**Henderson's Bush Lima**—The earliest of bush lima beans. The beans are delicious, flavor of good quality, and very productive.

**Anthracnose**, produces large, scabby, dead spots on the pods and the controlling measures are the selection of clean seed and spraying the plants with Bordeaux mixture.



**Powdery Mildew**, showing a white growth of fungus covering the surface of the leaves, especially in rainy or damp weather, should be treated with powdered sulphur.  
**Cut-worms** and **Flea Beetles** can generally be controlled with dry arsenate of lead sprayed or dusted on the leaves.

### POLE OR RUNNING, GREEN AND WAX PODDED



**Kentucky Wonder**—A prolific variety, producing long, tender pods of excellent flavor, one of the best green podded beans for the family garden.

**Kentucky Wonder Wax**—A yellow podded Kentucky Wonder.

**London Horticultural Cranberry Pole Bean**—Used as a green or shell bean, of good quality; a standard pole sort.

**Large White Lima**—A vigorous grower, bearing large pods from 5 to 8 inches.

**Scarlet Runner**—Vines and flowers, brilliant scarlet pea-like blossoms, a good shell bean.

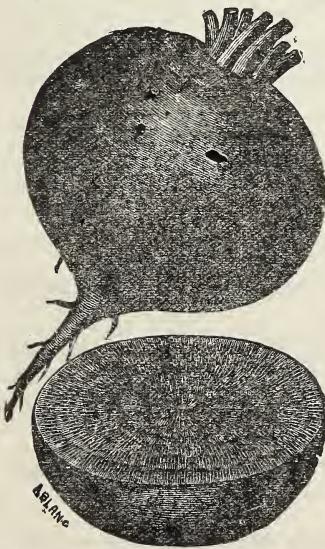
**White Creaseback**—An early, green-podded variety. Pods five to six inches in length, deeply creased or saddle-backed, and borne in clusters. Very fleshy and stringless; can be used as shell bean.

**Lazy Wife**—Produces long, thick, meaty and stringless pods in clusters, easily gathered; an excellent green podded variety.

### BEETS

Pkts., 5c; oz., 15c; lb., 90c.

**Culture**—Beets require a rich, sandy loam. Sow in drills one foot to 15 inches apart and when well started, thin to 4 to 6 inches. The seed will sprout better if soaked in lukewarm water 10 to 12 hours before planting.



**Crimson Globe**—Handsome early or main crop variety, medium size, globe shape, skin smooth, flesh blood red, slightly zoned, never stringy.

**Crosby's Egyptian**—More globe shaped than the Early Egyptian! very early and of fine quality; a desirable variety for the market gardener. (See Novelties, page 1).

**Detroit Blood Turnip Beet**—An improved strain of the Early Blood Turnip Beet; remarkably uniform and smooth; fine grained and tender.

**Dewing's Blood Turnip**—Smooth and handsome, of good color, medium size.

**Early Egyptian**—Round flat shape, dark red color. A good table variety.

**Early Blood Turnip**—An old standard variety, color dark red.

**Eclipse Blood Turnip**—An improved early kind, having a small top and taproot. The flesh is bright and dark red, tender and sweet. It attains a good size without becoming woody, and is a good keeper.

**Half Long Blood**—One of the best for winter use, never becomes woody.

## MANGEL, WURZEL AND SUGAR BEETS

Pkt. 5c; oz., 15c; lb., 65c.

Culture—Same as Beets.

**Danish Sludstrup**—Sludstrup is considered the best of all fall mangels. The color it is reddish-yellow and of a distinct type. It contains the largest per cent of nutriment found in any sort. It is very hardy, grows well above ground and is easily pulled.

**Golden Tankard**—The best yellow-fleshed mangel in cultivation. It contains a larger percentage of sugar than the red mangels. It has a small tap-root and grows largely above ground, yields enormously.

**Giant Yellow Intermediate or Gate Post**—Roots very large, growing over half out of the ground; flesh firm and white, sweet and tender, an enormous cropper, small tap roots, flesh firm and fine.

**Giant Feeding Sugar**—This magnificent Sugar Beet, while giving nearly as large a yield of easily grown and harvested roots as a crop of Mangels, supplies a food of very much higher nutritive value, the roots for feeding purposes being really more valuable, pound for pound, than those of the very best strains of Sugar Beet, and the yield under equally favorable conditions being more than double.

**Lane's Imperial Sugar**—An excellent variety and one of the best for stock feeding.

**Mammoth Long Red**—A large variety; producing immense crops. It grows much above ground, and is easy to harvest. The flesh is white, shaded with red. Requires deep, loose soil.

**Yellow Globe**—Immense size fine shape, grained; well adapted to shallow soils.

## BROCCOLI

Culture—Plant the seeds in hotbeds during March and April for an early crop. Transplant in June, in rows 3 to 4 feet apart and the plant about 2 feet apart in the row. For a late crop sow in beds, covering seed about  $\frac{1}{2}$  inch deep. A rich soil is the element of success.

**Columbia White**—No other Broccoli can supply the place of our Columbia White for autumn and winter use. The well-formed heads are large white, firm in texture and mature early. To succeed the summer and early autumn Cauliflower making solid heads frequently weighing 5 lbs., and 10 to 12 inches in diameter. Pkt., 10c; oz., 40c; lb., \$5.00.

**Purple Cape**—Similar to the white variety, excepting in color, which has a purplish brown tint. Pkt., 5c; oz., 30c; lb., \$4.00.

## BRUSSELS SPROUTS

Culture—Same as Cabbage.

**Improved Dwarf**—The dwarfest and earliest of all varieties. Sprouts solid and excellent flavor. Those who prefer small sprouts will greatly appreciate the improved Dwarf. Pkt. 5c; oz., 30c; lb., \$3.00.

**Swiss Chard, New Savoy Leaved.** (Lucullus) an improved variety of Swiss Chard, growing about  $2\frac{1}{2}$  feet high, the heavy stalks are over an inch thick and bare for more than a foot of their length. The leaves make the finest of greens. Swiss Chard is hardy, easily grown and should be in every garden. It is one of the most delicious of vegetables. Sow one ounce to 100 foot of drill. Oz., 20c;  $\frac{1}{4}$  lb., 60c; 1lb., \$2.00.

## CELERIAC OR TURNIP ROOTED CELERY

**Large Prague**—Forms good thick roots, used in soups and stews; has a Celery flavor. Pkt., 5c; oz., 20c;  $\frac{1}{4}$  lb., 70c.

**Witloof**—Known in restaurants as French Endive; treat as Endive, except that late in summer all it should be gradually banked up like celery. The stalks, when blanched, delicious salad. It is used by the French as a boiled vegetable. Pkt., 5c; oz., 30c.

## CHERVIL

Curled, resembling parsley; used in soups and salads. Pkt. 5c; oz., 15c.

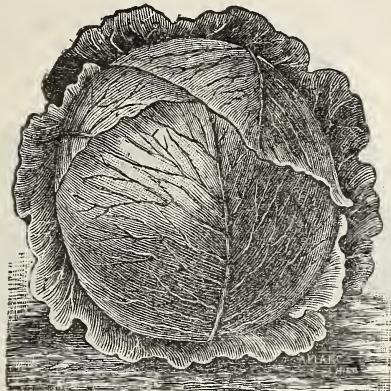
## CHICORY

as a substitute for Coffee, and the young blanched shoots are used 5c; oz., 15c.

## CABBAGE

Pkt., 5c; oz., 40c;  $\frac{1}{4}$  lb., \$1.50;  $\frac{1}{2}$  lb. \$2.50.

**Culture**—The soil should be a rich, heavy loam, with good drainage for the best results. For early varieties sow the seed in hotbeds during the winter months and when large enough transplant about 18 inches apart each way. Late varieties can be sown in the open ground during the spring months, transplanting about 2 feet apart each way.



Danish Ball Head

**All Seasons**—Large, round, flat heads; second early variety; does well in the fall and winter; a good sort.

**Copenhagen Market**—A new early variety, which will be very popular with market gardeners. It is the finest large, round-headed, early cabbage in cultivation. It has small core. The quality is extra fine and sweet. It matures as early as the Wakefields and will yield more to the acre in weight.

**Early Flat Dutch**—A medium early kind, much resembling the Early Drumhead. It grows low on the stem, and is a sure header; firm, fine grained, tender, and excellent. Keeps almost as well as the late kinds.

**Danish Ball Head or Hollander**—This is one of the hardest cabbages in cultivation and endures both frost and drouth that would destroy other varieties.

Plants rather long stemmed, but compact, leaves very smooth but thick; of medium size; round and very solid; the hardest heading cabbage we know of, and the very best quality. Matures quite late, keeps well, and is considered by many the best cabbage to hold over for spring markets. Pkt., 10c; oz., 60c;  $\frac{1}{4}$  lb., \$2.00.

**Danish Stone**—A new early, hardy, short-stemmed, large, round, very fine deep red heads; of fine flavor.

**Drumhead Savoy**—Improved strain; the best Savoy; large heads, tender and sweet; can be grown for either spring or winter use.

**Early Winningstadt**—One of the hardest of the early varieties; heads decidedly pointed; resists cold, wet and pests to a degree which makes it very desirable. Pkt. 10; oz. 50c;  $\frac{1}{4}$  lb. \$1.75.

**Jersey Wakefield**—One of the best early varieties; heads solid pyramid shape, with few outside leaves; very hardy and will stand considerable frost.

**Henderson's Early Summer**—A very popular flat-headed midseason cabbage, ten days later than Wakefield.

**Premium Drumhead**—Large, Solid heads, often weighing 20 lbs.; a good winter sort.

**Premium Flat Dutch**—One of the best varieties for the winter market; large round, flat heads, solid and firm; of good quality.

**Red Dutch**—A good variety for pickling; heads round and large. Pkt., 5c; oz., 40c;  $\frac{1}{4}$  lb., \$1.00.

**Surehead**—As the name implies, it is a sure header; large heads of good texture; a splendid keeping variety.

**Washington Wakefield**—Fully as early as the Jersey Wakefield and nearly double the size; a sure header and desirable variety.

There is hardly anything more aggravating than to sow seeds that don't come up. Time, labor, money and temper are lost!

Order your seeds from us,

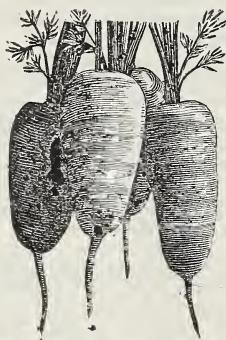
Because:

We not only test our seeds, but sell only those that have stood the test.

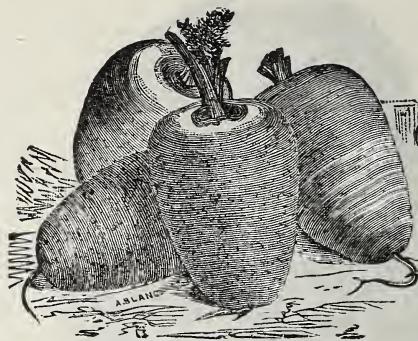
## CARROTS

Pkt., 5c; lb., \$1.00

**Culture**—Sow early varieties as soon as the ground can be worked; late varieties from May to August. The soil should be of a light sandy loam, well fertilized and deeply dug; sow in drills about 1 foot to 15 inches apart, and thin to 5 to 7 inches, according to the variety.



Chatenay Carrot



Oxheart Carrot

**Chatenay**—Half long stump-rooted, uniform and perfect in shape; tender and sweet; a good table sort.

**Danvers Half Long**—One of the most generally used Carrots, either for the table or stock feeding; a heavy bearer of fine texture, being sweet and tender; color a light orange. Lb., \$1.25.

**Early Scarlet Horn**—Short thick roots, flesh fine grained, color deep orange; an excellent table sort.

**Early French Forcing**—Very early, small and good flavor; fine for bunching.

**Improved Long Orange**—The best of the long varieties; color orange-scarlet; a heavy cropper, mostly used for milch cows; makes a good table carrot; requires a deep soil.

**New York**—(Stump Rooted). Tops of medium size; roots cylindrical, smooth, bright orange; flesh orange becoming yellow in center, but with no distinct core. Of the finest quality and one of the most symmetrical and handsome of the medium sized sorts; excellent for the market or home garden. Lb., \$1.50.

**Oxheart or Guerande**—The best cropper of the short Carrots, either 4 to 5 inches long and 3 to 4 inches thick at the shoulder, slightly tapering, very stump-rooted; the best variety for heavy soils; color, rich orange red.

**Large White Belgium**—Very productive, a good white stock Carrot.

**Mastodon**—The heaviest cropping Carrot grown; the flesh is white, solid, crisp and sweet; one of the best for horses and cattle.

## CHIVES OR SCHNITTLOUCH

**Chives**—Has a mild flavor of young onions, and is used in soups and salads. Pkt., 5c; oz., 20c.

## CORN SALAD OR FETICUS

**Culture**—Sow during August or early September, in drills one-fourth of an inch deep and 6 inches apart. If the weather is dry when the seed is sown, tread it lightly to insure germination. Keep weeds down with hoe. Just before winter cover thinly with straw or leaves.

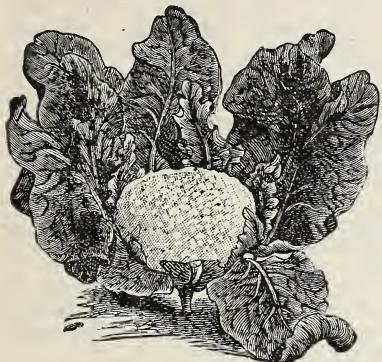
**DON's Buy cheap strains of Cauliflower Seed.** Only the best select strains can be depended upon to produce a big percentage of large white, solid heads.

Get a Hand Cultivator for your Garden and you will save two thirds of the work. Gardening then becomes a pleasure. See our Tool List at end of this catalogue.

Kindly send here a few names of your neighbors who buy Seeds and Plants, and we will forward them our Catalogue

## CAULIFLOWER

A vegetable requiring very rich soil, constant culture, plenty of moisture and careful attention. For early use, sow in hotbeds in January or February and when plants are large enough, transplant for later use, sow in June and treat as late Cabbage. Set plants out 15 to 18 inches apart and in rows 3 feet apart. When the heads begin to form, tie up the outer leaves to protect the head from the sun and weather. This prevents them from becoming bitter and spreading and becoming worthless and unsaleable heads. This bleaching can be accomplished by braking the ribs of the inner leaves and allowing them to fall over the head. This plant is always in ready demand, and at an excellent price.



**Danish Giant, Dry Weather**—Is an early, large, solid white Cauliflower that can successfully withstand a drought that would prove fatal to other varieties and will thrive splendidly in dry sections, being peculiarly adapted to their growing conditions, but, like all Cauliflower, must have rich soil and cultivation to give best results. Can also be grown under moist conditions and is a dependable market variety. **Pkt., 20c; oz., \$3.00.**

**Early Dwarf Erfut**—Extra early, forming good, solid, white heads. **Pkt., 20c; oz., \$2.50.**

**Early Paris**—An early variety with medium sized compact heads; an excellent sort, white and tender. **Pkt., 10c; oz., \$1.25.**

**Henderson's Snowball**—The best and most popular early variety; will make uniformly fine heads, even under adverse conditions. **Pkt., 20c; oz., \$3.00.**

**Large Algiers**—Large fine heads, fine for fall use. **Pkt., 15c; oz., \$1.50.**

**Veitchh's Autumn Giant**—A large, late variety; very hardy heads; well protected by the foliage keeping it fit for use a long time. **Pkt., 15c; oz., \$1.75.**

## COLLARDS

A species of Cabbage, bearing a large mass of leaves on top of a stout stalk.

**True Georgia**—The well-known variety; forms a very large, loose head; leaves tinted with purple. **Pkt., 5c; oz., 15c; 1/4 lb., 45c.**

## CELERY

**Pkt., 5c; oz., 30c; 1/4 lb., 85c.**

**Culture**—Plant in light rich soil, about March, cover the seed about  $\frac{1}{4}$  inch, and firmly press when 3 inches high, transplant to get good stalky plants, before they are finally set in the garden or field. Celery requires plenty of water from the time the seed is sown until ready for use. To get the best results, they should be grown on swampy or wet lands.

To succeed with celery you must keep your plants growing constantly while young, if you allow them to "stand still" they will run to seed later. Always cultivate as soon after watering as the ground is dry enough to work well. Fertilize heavily in the spring—and use nitrate later if needed.

All quotations are subject to change without further notice.

**DON'T BUY** cheap strains of Cauliflower Seed. Only the best select strains can be depended upon to produce a big percentage of large white, solid heads.

Get a Hand Cultivator for your Garden and you will save two thirds off the work. Gardening then becomes a pleasure. See our tool list at end of this catalogue.

## CELERY—Continued



grown for market.

Celery Plants—See page 18.

## CORN—SWEET OR SUGAR

Pkt., 10c; lb., 30c.

**Culture**—Plant in hills, five or six kernels to the hill, 30 inches apart for dwarf varieties, 36 inches for tall varieties in well pulverized soil. Keep well cultivated as plants grow; draw soil toward them.



**Early White Cory**—An extra early variety of good quality; white grains especially when cooked; ears 6 to 7 inches long.

**Golden Bantam**—A very early variety; ears medium size, thickly set with delicious yellow kernels; quality the best; it has become a favorite with all who have tried it.

**Golden Cream**—See Novelties)—Colored Sheet, page 2.

**Mammoth White Cory**—A large twelve-rowed corn of superior quality; stalks short, but bearing two or more large, fine-shaped ears, which is fit for use before most all other sorts; well adapted for this climate.

**Peep O'Day**—For flavor, sweetness and productiveness it is ahead of any other early white sweet corn. It will prove a money maker for the market gardener, a valuable addition to our list of corn for our short Western summers.

**Golden Self-Blanching**—The most popular variety for early market use; tender, brittle and sweet; inner stems and leaves a golden-yellow when matured; requires very little banking. Pkt., 5c; oz., 45c; 1/4 lb., \$2.50.

**Giant Pascal**—One of the best for fall and winter use; the stalks are large, solid, crisp and of a rich nutty flavor.

**Golden Hearted**—Rather tall, forming a large bunch and blanching white and crisp; very hardy and a good shipper.

**Large White Solid** — An old standard sort, of vigorous growth; white, crisp and tender.

**Winter Queen**—One of the best varieties for winter or spring use. It is stouter, thicker and heavier, with double the amount of heart of any other Celery; compact growth and blanches to a beautiful cream white; solid, crisp and nutty flavor.

**Black Mexican**—A medium early variety; ears eight inches long, well filled with rather flat grains which are deep bluish purple of sweet flavor.

**Country Gentleman or Shoe Peg**—A medium late variety and one of the best. Has long white cob closely filled with shoepeg kernels of fine flavor.

**Early Minnesota**—A good early variety for market and private gardens; ears eight-rowed; stalks grow about 5 feet high.

**Early Evergreen**—An improvement on Stowell's; similar in appearance and general character, but a week or ten days earlier, and remaining fit for use somewhat later than that well-known sort; equal to Stowell's in all other respects.

## CORN—SWEET OR SUGAR—Continued

**Stowell's Evergreen**—The most popular of the main crop varieties; large ears, with twelve to sixteen rows, which keep in good condition for boiling a long time.

**Sweet Corn.** The important enemy of Corn is the Corn ear worm. The Caterpillar of this pest is a small green or brownish creature which feeds on the protruding silks, and then passes back to the young kernels beneath the husk. There is from three to six generations yearly, thus making frequent treatment necessary.

Dry Arsenate of Lead 2 tablespoonfuls to each gallon of water sprayed on the young protruding silks will kill the Caterpillars before they can injure the ears, it is preferable to make light applications frequently, and thorough.

Or you may use Dry Arsenate of Lead with an equal amount of hydrated lime thoroughly mixed and dust on the protruding silks at intervals, making light, frequent and thorough applications.

Dusting Sulphur has only recently been used on Corn, but there is strong indications that it can be considered an efficient fungicide, controlling mold etc., wherever Sulphur has been used on corn, no mold has appeared or fungus could be found. On corn not dusted it was found to be very bad.

## FIELD, FODDER AND ENSILAGE VARIETIES

Lb., 15c; 10 lbs., \$1.25.

**Early Yellow Canada**—A flint variety, eight-rowed, very early and productive.

**Leaming Improved**—An early variety. Planted over a greater area than any other.

**Pride of the North**—An early dent variety. The kernels are long and of a beautiful color.

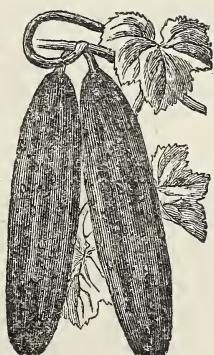
A quick grower, thriving where the seasons are short.

**Red-Cob Ensilage**—Abundant herbage; tall growth.

## CUCUMBERS

Pkts., 5c; oz. 15c;  $\frac{1}{4}$  lb., 35c.

An early crop of Cucumbers can be had each year by planting the seeds in a box, pots or a piece of sod so that they can be readily transplanted without checking the growth. For outside planting, the ground should be prepared and put in good condition, and the seed should be planted when the ground gets somewhat warm, and about an inch deep, and in hills slightly raised above the level of the ground, about 4 feet each way apart. We also recommend planting 3 or 4 times as much as needed, and then thin out to 3 or 4 strong plants to each hill, as the insects attack which are the weakest, give thorough cultivation, and fruit should be gathered and not allowed to ripen on the vine, as this reduces the production. 1 oz. to 50 hills. The cucumbers are ready for use in about 2 months after planting.



**Arlington White Spine**—A dark green variety, turning white when ripe; fruit straight and of even shape, tender and crisp; fine for forcing.

**Boston Pickling**—A distinct variety; color bright green, and a good producer; makes excellent pickles.

**Davis perfect**—Unequalled for color, shape and productiveness. Mr. Eugene Davis, the originator, also the originator of Grand Rapids Lettuce and Davis White Wax Bean, says: "I have been experimenting for several years and have at last succeeded in fixing a perfect type, combining quality, shape and color and productiveness. The quality is fine, very tender and brittle and with

very few seeds; altogether an exceptionally fine table variety."

**Early Frame**—Plants vigorous and productive; fruit straight, bright green, tender and crisp; makes excellent pickles.

**Early green Cluster**—Vines vigorous producing the bulk of the crop in clusters; fruit short and uniformly thick, and ends crisp and of good flavor.

### CUCUMBERS—Continued

**Extra Early Long Green**—Similar to the Long Green, but about two weeks earlier.

**Japanese Climbing**—Forms long fruit of rich dark green color; flesh white crisp, and of fine flavor; the best variety for training to trellis.

**Long Green**—One of the most popular varieties for general use; the skin is dark green, the flesh solid, crisp and of good quality; forms fruit about 12 inches long; almost as early as the short varieties; makes fine, large pickles.

**White Spine**—A long, smooth variety; flesh tender, white and crisp; uniform in shape and exceedingly early.

### CRESS

**Curled or Peppergrass**—The leaves are used as a salad; has a warm, pungent taste; they should be sown at intervals of two weeks, as they are the best when young. Pkt., 5c; oz., 15c.

**True Water**—Thrives only when the roots and stems are submerged in water. Sow the seed thinly along the banks of any shallow stream early in the spring. Entirely distinct from the Curled Cress. Pkt., 5c; oz., 35c.

### EGG PLANT

**Culture**—Egg Plants require a warm soil and climate, and will not give satisfaction where cool nights prevail; they require the same treatment as Tomatoes; as the seed is slow to germinate, they should be started under glass with moderate high temperature.

**New York Improved**—The leading variety; fruit large oval, and fine flavor. Pkt., 5c; oz., 60c.

**Black Pekin**—Fruit nearly round; skin smooth and almost black. Pkt., 5c; oz., 60c.

### ENDIVE

One oz. to 100 feet of Drill. Pkt., 5c; oz., 15c.

This is a hardy vegetable, cultivated principally for a winter salad. Sow from May until August for a succession of crop; tie the leaves closely together to blanch them.

**Green Curled**—Very curly; a favorite sort for winter; plants attractive.

**White Curled**—Leaves pale green; grows to a large size; always crisp and tender.

**Broad-Leaved Batavian**—A variety having wide, thick leaves, straight at the edges and curved toward the center; color dull green.

### KALE OR BORECOLE

.....Pkt., 5c;  $\frac{1}{4}$ lb., 65c.

**Culture**—Cultivate the same as for cabbage, of which it is a species, forming a mass of curly leaves. Seed can be sown in September and be ready for use in winter; very hardy and improved by frost.

**Dwarf Green Curled**—Leaves bright green, curly and tender.

**Thousand Headed**—See Field Seeds, page 22.

**Tall Green Scotch**—Grows about  $2\frac{1}{2}$  feet high, leaves dark green, very hardy; will stand the winter.

**Jersey Winter Kale or Marrow Cabbage, White**—See Field Seeds, page 22.

### KOHLRABI

Pkt., 5c;  $\frac{1}{4}$  lb., \$1.00.

An excellent vegetable for any garden, and used more extensively each year, forms a bulb above the ground, which should be cut while young, as it becomes tough and stringy if allowed to remain too long. Sow as soon as the ground can be worked, in drills 18 inches apart, thin to 8 inches.

**Early White Vienna**—Standard market sort; flesh white and tender.

**Early Purple Vienna**—Bluish-purple, similar to the white, except in color.

### LEEK

Cultivate the same as for Onions, except they should be hilled up to blanch. Is preferred by many for soups and stews on account of its mild flavor.

**American Flag**—A large, strong growing variety, of good flavor, the standard market sort. Pkt., 5c; oz., 25c;  $\frac{1}{4}$  lb., 75c.

## LETTUCE

**Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c.**

**Culture**—Sow as soon as the ground is in condition at intervals of two weeks during the season, in drills 15 inches apart; drop seed about  $\frac{1}{2}$  inch deep; when large enough, thin to 8 to 10 inches. Lettuce does well in most any good garden soil.

**Black Seeded Simpson**—Has a large mass of fine, brittle leaves of light green color; it is larger and less curled than the Early Simpson; remains tender a long time.

**Big Boston**—A light green cabbage variety; slightly tinged with brown in the head. A popular market sort.

**Boston Market**—One of the best for forcing or early outdoor planting. Plants medium size, having thick, dark green leaves. When grown forms solid heads which are crisp and tender.

**California Cream Butter**—Forms a large head, which is very buttery, and of a rich golden-yellow inside, bright green variety and a good shipping sort.

**Early Curled Silesia**—An early variety of dwarf, compact habit, crisp, golden and finely curled leaves.

**Grand Rapids**—One of the best for forcing; its light-green color makes it very attractive.

**Hanson**—One of the best large heading varieties; crisp and brittle; leaves curl and flavor excellent.

**New York**—This is the mammoth head lettuce so popular in California, from whence it is shipped to the Northern market, arriving in splendid condition. The immense heads are solid, heavy, beautifully blanched to a creamy white, with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. See page 2.

**Prize-Head**—One of the best loose bunching varieties. Leaves tinged with red grows quickly.

**Paris Cos or Romaine**—A distinct variety forming upright heads.

## MELONS—MUSK

**Pkt., 5c; oz., 15c.**

Melons require a light rich, sandy soil and should not be planted until all danger of frost is over. Plant in hills 8 feet apart and 1 inch deep, 6 to 8 to a hill, and when plants are well established thin to 3 plants.

**Emerald Gem**—This is a variety of excellent quality; it is of medium size. The skin is white ribbed, perfectly smooth and of deep emerald green color, and ripens to the green rind.

**Rocky Ford**—The most popular market variety, fruit slightly oval, and finely netted, seed cavity small; flesh thick and sweet to the rind.

## MELONS—WATER

**Pkt., 5c; oz., 15c.**

**Peerless**—Rind thin, light mottled green, flesh red and solid to the core; a good early variety.

**Citron**—(Red or Green Seeded). Round and handsome; for preserving only.

**Kleckley's Sweet**—A splendid sort for home use or near markets. Vine vigorous and productive; fruit of medium size; color dark, mottled green in two shades, forming indistinct stripes. Flesh a beautiful bright rich red.

## MUSTARD

The leaves make excellent greens of sharp, pungent flavor, and are cooked the same as Spinach. Sow the seed in early spring in drills at intervals to secure a constant supply of fresh greens.

**White English**—A light green variety with tender leaves, seeds light yellow. **Pkt., 5c; oz., 15c.**

**Giant Southern Curled**—A large variety, forming a large mass of finely curled leaves. **Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 30c; lb., \$1.10.**

**FARMOGERM** is a practical success. A \$2.00 package used on a leguminous crop will produce as much Nitrogen as 8 tons of manure.

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**Commercial Fertilizers Profitable**—A 100 pound bag of high grade fertilizer will contain more soluble and available plant food than 4000 pounds of stable manure of average quality. How much cleaner and easier to handle a 100-pound bag than two tons of manure, and no weed seeds to contend with.

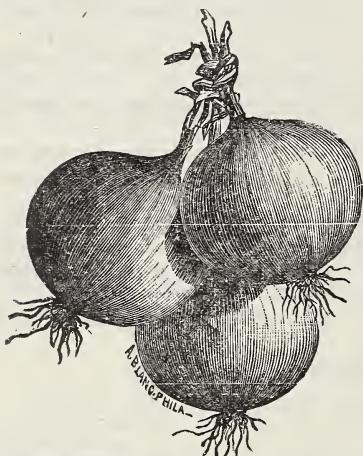
## ONIONS

**Culture**—For the best results in Onion growing, the soil should be deep and rich; bottom land, rather loose texture being preferred.

Sow  $\frac{1}{2}$  or 3 lbs. of seed per acre, as early in the season as the ground can be put into proper condition, using some good fertilizer or manure supplemented with Bone Meal, Muriate of Potash, and in some cases Nitrate of Soda, the latter often being used after the plants are up, while the other fertilizers are worked into the soil before the seed is sown. Hardwood ashes may take the place of the Muriate of Potash.

Thorough clean cultivation during the growing season is necessary.

To be sure of a good crop, sow none but the best seed—it may cost a little more than a cheaper grade of seed, but it is worth more than the difference in the price.



**Yellow Globe Danvers**

**Australian Brown**—An extra early, sure bottoming variety, resembles the Danvers in size and form, very solid, of brown color; fine keeper. Pkt., 5c; oz., 20c; lb., \$2.25.

**White Globe**—A handsome white globe shaped variety; flesh fine, very white, rich and sweet. Pkt., 5c; oz., 30c;  $\frac{1}{4}$  lb., \$1.25; lb., \$3.00.

**White Portugal**—The most popular of the onions; flat on the bottom and thick toward the top; used most exclusively for bunching. Pkt., 5c; oz., 30c;  $\frac{1}{4}$  lb., \$1.25; lb., \$3.00.

**White Queen**—A very early, small white onion, of mild flavor, fine for pickling. Pkt., 10c; oz., 40c;  $\frac{1}{4}$  lb., \$1.25; lb., \$4.00.

## ONION SETS

**White Onion Sets**, lb. ..... 25c    **Egyptian Sets**, lb., 30c.

**Yellow Onion Sets**, lb. ..... 20c

Plant in drills 12 inches apart and 4 inches in the rows. They must have high culture.

## OKRA

**White Velvet**—Very productive and superior in flavor to any other variety. Pkt., 5c; oz., 15c; lb., 75c.

## PARSNIPS

Pkt., 5c; oz., 15c; lb., \$1.25.

Parsnips thrive best on a rich, sandy soil, deeply dug; sow early in the spring in drills 18 inches apart; as they are improved by frost they should be left in the ground for spring use.

**Hollow Crown**—Roots white and tender, with a smooth, clean skin.

**Sweet Marrow**—Roots smooth and very fine grained, sweet and tender; the best for the family garden.

## PARSLEY

Pkt., 5c; oz., 15c.

Used for garnishing in green state; can be dried and rubbed into a powder for winter use. Sow in drills one foot apart and half an inch deep. Seed slow to germinate; should be soaked in tepid water a few hours before planting.

**Double Curled**—Very finely curled, of dark green color; fine seasoning.

**Triple Curled**—A popular dwarf variety; finely curled. Same price as Double Curled.

**Moss Curled**—A moss curled variety of green color and very ornamental; the best for garnishing.

**Turnip Rooted**—The roots are the edible portion, and are used in soups and stews.

## SEED POTATOES

Do not work the soil when it is wet, as this has a tendency to make it lump and bake and may put it in such shape that nothing can thrive in it. Wait until it is just dry enough to crumble away nicely when turned over, and if you will press the dirt firmly down on the seeds, getting right in the row and tramping the soil down with your feet—they will germinate quickly even in comparatively dry soil. Any extra work in carefully preparing the soil will more than repay you in the increased results, and always remember that constant and thorough cultivation is almost equal to water and fertilizer both, and will insure a good crop even in a dry season, and on ordinary soil.

New land must be thoroughly broken up and cultivated in order to kill out the wild nature, as new ground in the wooded sections of the Pacific Coast rarely produces bountiful crops and the first few seasons without careful culture, fertilizing and rotation.

It pays to fertilize and cultivate to supply ready plant foods to the growing crops, as many years of accumulation of Fir and Pine needles will sour the ground, and until they rot and decay are detrimental to crop growth, but if properly worked and fertilized, good and profitable crops can be harvested from the beginning.

Select a rich soil, plant in rows 3 feet apart, and 12 inches apart in the rows, about 6 inches deep. Cut tubers so as to have one or two good eyes, and let stand for two or three days before planting. Do not use manure, for it has a tendency to produce seab, unless well rotted.

**Early Ohio**—Oblong shape, pink skin, shallow eyes; can be marketed before fully matured.

**Early Bovee**—Best of the early sorts, maturing before Early Rose, and more productive.

Fine quality, color pinkish and uniform size.

**American Wonder**—An early, pure white, handsome appearance, splendid quality and very productive.

**Netted Gem**—Russet rough skin, oblong in shape; excellent for baking.

**Early Rose**—A popular early variety which gives satisfaction in most all sections.

**Gold Coin**—A good main crop variety, slightly oblong; the eyes are small, skin thin, flesh fine grained, and cooks dry and mealy.

**Burbank**—A well-known and fine late variety, oblong in shape, skin white and very smooth, flesh fine grained.

Owing to the unsettled market on Potatoes we have omitted prices. Drop us a postal—we will quote prices.

**Irish Cobbler**. A large potato and a heavy yielder. Tubers round and slightly flattened; flesh white and cooks dry and floury. It is very popular in this section, both for early and late planting. The vines are vigorous and make a healthy growth.

## FORMALDEHYDE FOR POTATOE SCAB

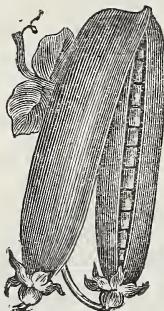
Soak the tubers before cutting for one hour and a half in a solution of 1 lb. (or pint) of Formaldehyde to 30 gallons of water. The potato fungus lives in the soil and on old vines; hence it is wise to keep it off your land by using Formaldehyde for your seed potatoes.

Prices, pint bottle 75c; sent by Freight or Express only, at purchaser's expense. Cannot be mailed.

## PEAS

Pkt., 10c; lb. 35c.

A light, dry soil is best for peas, although they succeed in most any ground. On too rich soil they have a tendency to run to vines. Plant dwarf varieties in drills 2 feet apart and tall sorts 3 feet apart, cover about 3 inches. Hoeing will well repay the time and trouble. Wrinkled sorts are marked with a star (\*).



**Alaska**—Pods well filled with medium sized bluish-green peas, of excellent flavor; extra early. Pkt., 10c; lb., 25c.

**American Wonder\***—The best dwarf wrinkled variety for all purposes, prolific, bearing short, well-filled pods, containing 6 to 7 large, exceedingly sweet, tender and fine flavored peas.

**Premium Gem\***—A good dwarf wrinkled variety, taller, more prolific and a little later than the American Wonder; sweet and fine flavor; 18 inches high.

**Laxtonian\***—A new, early, dwarf, robust, large podded pea of superior excellence;

often referred to as "Dwarf Gradus," and is said to surpass Gradus in yield and quality, with the added advantage of dwarfer growth, averaging 16 inches. The large pods are well filled, holding 8 to 10 peas. Laxtonian is so highly recommended that you should give it a trial.

**Gradus or Prosperity\***—The best of the large early peas; very hardy; can be planted almost as early as the smooth varieties; pods are large and well filled with fine flavored peas.

**Stratagem\***—One of the best of the large podded peas; the pods are of immense size, filled with large dark green, wrinkled peas of the finest quality; vine of medium height, but very stocky, with very broad, light green leaves, and bearing an abundance of large handsome pods.

**Dwarf Telephone\***—The vines are vigorous, of a branching habit and bear immense quantities of large dark green pods, containing from 8 to 10 fine flavored peas; a favorite with the market gardeners; 2 feet high.

**Teddy Roosevelt\***—Resembles the Telephone in color of pod and foliage and habit of growth, but the pods are large and shell out nearly twice as many peas, 5 feet high.

**Telephone, Tall\***—A great favorite with our market gardeners. Immensely productive, of the finest quality and excellent, sugary flavor; vines strong; the pods are of large size, filled with large luscious peas; height four feet.

**Dwarf Gray Edible Pod**—Vines grow 18 inches high, with purplish blossoms; the pods are edible and cooked like beans.

## PEPPER

Sow seeds in hotbeds, and when the weather becomes warm plant in warm, mellow soil, in rows 18 inches apart and 12 inches apart in the rows.

**Large Ball or Bull Nose**—A large, mild thick fleshed variety, the best for making stuffed pickles.

**Long Red Cayene**—A strong pungent variety, having long pointed fruit; fine for seasoning.

**Ruby King**—A large scarlet fruit of mild flavor. Vigorous growing plants, producing from 8 to 16 handsome fruit.

Food is of vital necessity, and from the day of our entry into the war America's army of food producers has rendered invaluable service to the allied cause by supporting the soldiers at the front through their devoted and splendidly successful work in the fields and furrows at home"—From a letter of appreciation to the farmers from Gen. John J. Pershing to Carl Vrooman, Assistant Sec'y of Agriculture, October 1919.

In ordering Bird Cages by mail it would be well to make a second and third choice, in case we did not have your first choice. Express or freight.

## PUMPKIN

Pumpkins take the same treatment and soil as the melons. Care should be taken to keep them from other vining plants, as they hybridize easily.

**Sugar or Pie**—A small round yellow variety, flattened on the ends; flesh fine grained, sweet and prolific. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 75c.

**Japanese Pie**—A crook-neck variety of fine quality, flesh deep yellow, seeds curiously marked like Japanese characters. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 25c.

**Large Cheese**—Grows to large size, flat and round, skin mottled light green and yellow, flesh very thick, sweet and nutritious. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 25c; lb., 75c.

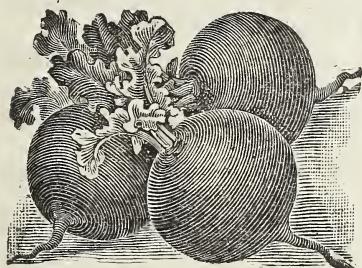
**Quaker Pie**—A distinct variety; very prolific. The pumpkins are nearly round in shape; creamy white inside and out when ripe; fine grained and rich in flavor, good keepers and among the very best for pies. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 30c; lb., 90c.

**Connecticut Field**—A large orange colored field variety, vines vigorous and productive; makes excellent pies and is a good keeper. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 60c postpaid.

## RADISH

Pkt. 5c; oz., 15c;  $\frac{1}{4}$  lb., 45c; lb., \$1.50.

Sow early in the spring in rows 10 inches apart, and at intervals of ten days for a succession. The winter varieties sow in August and September. The soil should be light and rich, as a crisp radish cannot be produced in heavy soils.



**Early Scarlet Turnip**—A small turnip shaped variety, valuable for forcing or outdoor culture, short tops.

**Early Scarlet Turnip, White Tipped**—The leading market sort, tender and crisp; scarlet with white tip; short tops.

**Early White Turnip**—Mild and sweet, small tops, pure white.

**French Breakfast**—Grows about 2 inches long with a decidedly stump root; color bright with lower end and tap root white, tender and crisp.

**Long Brightest Scarlet**—Long, uniformly straight, smooth, crisp and tender; excellent for the garden or market.

**Long Scarlet White Tipped**—An especially fine radish, color scarlet, shading to white at the tip; flesh very crisp and tender; a good market sort.

**White Icicle**—The finest pure white variety; very early, with smooth symmetrically shaped roots. The radish is not only crisp and tender when young, but reaches a large size.

**White Strasburg**—Large white Summer variety, a favorite with a great many.

**Round Black Spanish**—Slightly oval in shape, flesh solid and firm. A good winter sort for slicing.

**China Rose Winter**—A half-long, bright scarlet, stump-rooted winter variety, flesh firm and crisp and does not grow pithy until it runs to seed.

**California White Mammoth (Celestial)**—A well-known and popular winter variety, flesh and skin transparent white.

## RHUBARB

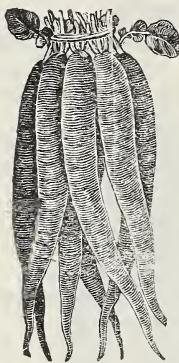
Pkt. 5c; oz., 15c; lb., 75c.

Rhubarb requires a rich soil, deeply dug. Sow in drills 18 inches apart and thin to 6 inches in the rows. We recommend planting the roots, as it takes four years to produce a crop from the seed.

**Mammoth Linnaeus**—Early, large size and fine quality.

**Victoria Giant**—Very large, later than the Linnaeus.

**Rhubarb Roots**—See page 18.

**SALSIFY**

Sow early in drills 12 inches apart, 1 inch deep, in a light, rich, sandy soil; when about 3 inches high, thin to 6 inches apart. Takes the same cultivation as the Carrots. Mashed and fried the flavor is much like the oyster.

**Mammoth Sandwich Island**—The leading variety; large, smooth, straight and of superior quality. Pkt., 5c; oz., 20c;  $\frac{1}{4}$  lb., 75c; lb., \$2.75, postpaid.

**SQUASH**

Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb. 40c.

**Culture**—Sow in hills in the same manner and at the same time as cucumbers and melons, the bush varieties 3 to 4 feet apart, the running kinds from 6 to 9 feet apart.

**Early White Scalloped Bush**—A very early variety, bearing creamy-white scalloped squashes, 4 to 6 inches in diameter, known as the patty-pan.

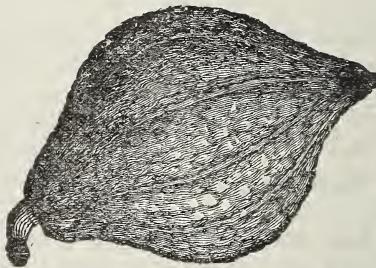
**Early Yellow Scalloped Bush**—Similar to the white, except that the color is yellow, and not quite so early.

**Mammoth Summer Crookneck**—A large golden-yellow variety, thickly warted, tender and brittle.

**Delicious**—A dark green variety, with thick orange colored flesh, cooking very dry and mealy; can be used in the fall, but it is at its best in the winter.



Mammoth Summer Crookneck



True Hubbard

**Mammoth Chili**—Grows to immense size, flesh orange, fine grained and sweet. Its size makes it valuable for stock feeding.

**Delicata**—Can be used as a summer or winter variety. Matures about the same time as the summer sort. The quality is rich and dry, being very solid and heavy with small cavity and fine flavor. Color, orange-yellow splashed with striped dark green.

**True Hubbard**—Fruit Oblong and pointed, heavily warted, dark green with orange colored flesh, which is exceedingly dry, either baked or boiled; remarkably good keeper.

**Boston Marrow**—Skin thin, reddish-brown, flesh orange, and fine grained, and of excellent quality.

**Vegetable Marrow**—The true English strain; cream color, merging into deep yellow white flesh; about 9 inches long.

## SPINACH

Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 30c.

Sow early in drills one foot apart; plant every two weeks for a succession. For fall and winter use sow in August and September. The richer the soil the larger and more tender the leaves.

**Long Standing**—A deep green variety, with rather elongated smooth leaves; stands a long time without running to seed.

**Prickly or Winter**—Very hardy, smooth and narrow shaped; seeds prickly; an excellent fall and winter variety.

**Round Thick-Leaved**—Leaves large, dark green, rather smooth and round at the top.

## TOMATO

Pkt., 5c; oz., 35c.

Sow in hot bed in March, and as soon as the plants have two or three leaves transplant to cold frames. When all danger of frost is over, plant in hills 4 feet apart each way.

**Comet—Forcing**.—The very best forcing variety, and a general favorite with greenhouse growers. Color is a beautiful scarlet; fruits are of good size, very smooth and uniform.

**Carter's Sunrise**—Rich scarlet, medium size, solid delicate flesh. Very prolific.

**Spark's Earliana**—A perfect early tomato, almost seedless, and very solid; a vigorous grower, and very prolific; ripens thoroughly all over; color bright scarlet; one of the best varieties for this section.

**Atlantic Prize**—An extra early smooth tomato of good size, solid flesh, color bright red, popular in the vicinity of Seattle.

**Dwarf Champion**—A dwarf and compact variety, sometimes called the tree tomato, on account of its ability to stand alone without trellising; very early and smooth, solid meat; has no hard core.

**Chalk's Early Jewel**—Ripens a little later than the Earliana, more desirable, as the fruits are thicker through and more solid; of bright scarlet color, and of good quality.

**Ponderosa**—The largest tomato; fruits are solid and of a purplish red color, sweet and of good quality.

**Red Cherry**—Fruit small and globe shape, color bright scarlet, and very ornamental; valuable for preserving.

**Yellow Plum**—A plum shaped variety; growing in clusters; fruit yellow and of good flavor.

## AROMATIC MEDICINAL AND POT HERBS

Those marked with a(\*) are perennial.

**Anise**—The seed being especially used for seasoning food. Pkt., 5c; oz., 25c.

**Basil Sweet**—Leaves used for seasoning soups, meats and salads. Pkt., 5c; oz., 25c.

**Caraway**—Seed used in flavoring bread, cakes, etc. Pkt., 5c; oz., 15c;

**Catnip\***—Leaves used for medical purposes. Pkt., 5c; oz., 40c.

**Coriander**—Seeds used in flavoring pastry, confectionery, etc. Pkt., 5c; oz. 20c.

**Dill**—Seed and foliage used in seasoning, also as a medicine. Pkt., 5c; oz., 20c.

**Fennel Sweet\***—Leaves ornamental and used in flavoring. Pkt., 5c; oz., 20c.

**Horehound\***—Whitish hairy leaves, used in confectionery, also in medicines. Pkt., 5c; oz., 20c.

**Lavender\***—An aromatic, medical herb, stems are used in fancy work. Pkt., 5c; oz., 25c.

**Marjoram Sweet\***—Leaves used both green and dried in seasoning. Pkt., 5c; oz., 25.

**Sage\***—Used extensively for seasoning. Pkt., 5c; oz., 20c.

**Savory, Summer**—Leaves and stems used in flavoring. Pkt. 5c; oz., 20c.

**Savory, Winter**—Used for flavoring. Pkt., 5c.

**Thyme\***—Has fragrant leaves. Pkt., 5c.

**Tansy**—Used medicinally as tea and bitters. Pkt., 5c.

**Celery**—For flavoring.  $\frac{1}{4}$  lb., 25c;  $\frac{1}{2}$  lb. 45c; lb., 80c.

**Mustard**— $\frac{1}{4}$  lb., 15c;  $\frac{1}{2}$  lb., 25c; lb., 50c.

## RUTA BAGA OR SWEDES

Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb. 1.50.

Cultivation same as turnips.

**American Purple Top**—The most popular variety, grows to immense size, and a heavy yielder; flesh yellow, firm and of good flavor.

**Yellow Swede**—A large yellow variety of good quality; flesh firm and solid, globe shape.

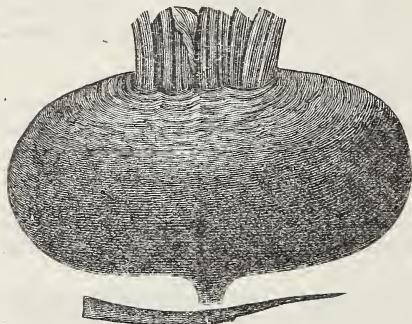
**Hurst's Monarch**—Roots very large, oval in shape, growing well out of the ground, and yields large crops; flesh solid, fine grained and of good flavor.

**Sweet Russian**—A white fleshed Ruta Baga, very hardy, solid, fine grained and tender.

## TURNIP

Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.75.

Turnips do best in highly enriched light sandy soil. Sow as early as the ground can be worked for early turnips, and for late crops in July, August and September, in drill 18 inches apart and 1 inch in depth. Thin to 6 inches apart in the rows.



**Snowball**—A very early and the most perfectly formed round white turnip. It has a short top, and a single tap root, flesh snow-white, solid and sweet.

**Early White Milan**—A pure white, extra early flat variety, tender and sweet, a good family sort. Pkt., 5c; oz., 25c; lb., \$2.25.

**Early Purple Top Milan**—A very early variety; tops small, erect and of strap-leaved type, bulb white, with a deep purple top, flesh white, firm and fine grained. Pkt., 5c; oz., 20c;  $\frac{1}{4}$  lb., 50c; lb., \$2.00.

**Golden Ball or Orange Jelly**—Medium size, globe shape, flesh firm, fine grained and sweet, the finest flavored and best of the yellow turnips.

**Cow Horn**—A distinct variety, resembling the Carrot more than the turnip; it is long and white with a dash of green at the crown, of rapid growth; has proven itself a good stock turnip in this section.

**Purple Top Strap Leaf**—A leading white-fleshed variety, with purple top, flesh firm, tender and of rich flavor.

**Purple Top White Globe**—A valuable sort for either table or stock feeding; roots globe-shaped, white; a good fall turnip.

**White Egg**—A medium size oval or top shaped variety of quick growth; flesh firm, tender and sweet; a good fall turnip.

**Yellow Aberdeen**—A winter variety of medium size, generally used for stock feeding, yellow with purple top; flesh light yellow; firm and sweet.

**Petrowski**—A most distinct variety of early maturity. The flat roots average two and a half to three inches in diameter, and the skin is a rich deep orange-yellow, very smooth and entirely free from small rootlets. The firm, solid flesh is fine grained, crisp, light orange-yellow in color, and has a tasty flavor.

## VEGETABLE PLANTS—ROOTS

**Celery**—Leading kinds, post paid by express, Per dozen 20c; per 100, \$1.25.

**Tomatoes**—Leading kinds. Per dozen, 25c; per 100, \$1.50.

**Cabbage**—Early or late kinds. Per dozen, 15c; per 100, 90c.

**Asparagus**—2 year old plants. Per dozen, 40c; per 50, \$1.25; per 100, \$1.75. By express, per doz., 30c; per 50, \$1.00; per 100, \$1.40.

**Cauliflower**—Early Snowball, plants, Per doz., 25c; per 100, \$1.50.

**Rhubarb or Pie Plant**—Giant best hardy variety 1 year old; roots each, 15c; per doz. \$1.00

Add 25c per 100 for Cabbage and Cauliflower Plants by mail.

## NAPHTHALINE FLAKES—CABBAGE WORMS

One of the greatest troubles in this country is the cabbage worm, which destroys thousands of young cabbage plants soon after they have been set out. A small fly lays its eggs in a small hole bored into the stalk of the plant; and as soon as the larvae are hatched they start to eat the heart of the stalk; the plant withers and dies in a short time. There is no cure for this pest, but to prevent the flies from laying their eggs, a small quantity of Napthaline Flakes should be sprinkled around each plant. This is to be repeated every few days until the plants are strong enough to withstand the inroads of the fly. You can thus save every plant you have. Napthaline Flakes, 30c per lb.

**MUSHROOM SPAWN** as far as I am concerned, I have never had any success with it. It is a good idea to have some ready made spawn, and then mix it with some old straw to make a bed for the mushrooms to grow in. This is the best way to do it.



With intelligent care and good spawn, mushrooms can be made to pay handsomely. They can be successfully grown in a dry cellar, under the benches of a greenhouse, or in sheds, where the temperature can be kept from 50 to 60 degrees through the winter. Our free pamphlet gives general instruction.

**Lambert's Pure Culture**—A new kind of spawn without a doubt has the best superlative English. It comes in bricks weighing about 20 ozs.; these are broken up into pieces the size of a walnut and put into the bed 1 foot apart each way.

A brick will plant 10 square feet. Price per brick 25c; by mail 35c.

**GARDEN PESTS AND THEIR CONTROL**

The suburban dweller, the diversified farmer, and the owner of the small country place always have been handicapped in their efforts to combat insect pests, which so often destroy the foliage, by not having spraying directions stated in terms to meet their requirements.

Beans and Peas, Bean Anthracnose and Pod spot and Bean blight are serious diseases of the Bean, they look much alike and are often confused. As soon as the first true leaves have expanded spray with Bordeaux Mixture  $\frac{1}{2}$  ounce to a gallon of water.

If Slugs or Snails come up at night and eat the foliage use 2 tablespoonfuls of dry Arsenate of Lead to the gallon of water.

Downey Mildew, burn all diseased pods and spray with Bordeaux mixture  $\frac{1}{2}$  ozs. to the gallon of mixture.

Aphids or Plant Lice, suck sap from leaves and make leaves crumple. Spray with Blackleaf 40, 1 teaspoonful to the gallon of water; being very thorough in spraying both sides of the leaf.

Cabbage Rust, this is a foliage disease, spray with Bordeaux Mixture  $\frac{1}{2}$  ozs. to the gallon of water.

Beets and Swiss Chard, these plants are usually free from trouble, but in the home garden the foliage may show some leaf spot. Spraying with Bordeaux Mixture is effective at  $\frac{1}{2}$  ozs. to the gallon of water, the small amount of copper in the Bordeaux Mixture is harmless; increase the leaves are to be used for greens.

Cabbage, Cauliflower, Brussels Sprouts, Kale etc. Cabbage Worms eat leaves, when worms appear spray with 2 tablespoonfuls of dry Arsenate of Lead to the gallon of water, or you may use Slug shot as directed on package.

Aphids or Plant Lice, use one teaspoonful of Blackleaf 40, to the gallon of water, repeating as often as found necessary to hold them in check.

Cabbage Maggot, bores into the stem of the plants, and is hard to control. Use Napthaline Flakes, putting a small pinch at the base of the plant, when first set out and repeat as necessary to always keep some of the Napthaline at the base of the plant. This keeps the Miller or fly away that deposits the eggs from which the Maggot is produced. Careo is also recommended for this purpose, use as directed on package.

Cut Worms, use poisoned bait, this bait should be scattered in the evening, as the worms work at night, be careful to keep birds and chickens from it until it dries out, now

old Cabbage Maggot, bores into the stem of the plants, and is hard to control. Use Napthaline Flakes, putting a small pinch at the base of the plant, when first set out and repeat as necessary to always keep some of the Napthaline at the base of the plant. This keeps the Miller or fly away that deposits the eggs from which the Maggot is produced. Careo is also recommended for this purpose, use as directed on package.

## GARDEN PESTS AND THEIR CONTROL—Continued

Celery, Leaf Spot and Leaf Blight are common troubles, spray with Bordeaux Mixture 2½ ozs. to the gallon of water, Celery Caterpillar, spray with dry Arsenate of Lead 2 tablespoonfuls level full to the gallon of water, going over them as often as found necessary to keep them in check.

Cucumbers, Cantelopes, Squashes, and Pumpkins. The striped Cucumber Beetle destroys foliage rapidly, just as soon as it appears the foliage should be sprayed with 2 level tablespoonfuls of dry Arsenate of Lead to the gallon of water, applications should be repeated at frequent intervals until the pests disappear.

The Pickle Worm and Melon Worm are alike in their habits, the Caterpillars can be destroyed by using dry Arsenate of Lead equal parts with Hydrated Lime and dusting thoroughly, the first application should be made at the time the first blossom buds appear, and should be repeated twice at intervals of a week.

Mildew may appear, causing the foliage to turn yellow and die. The plants should be sprayed thoroughly with 2½ ozs. of Bordeaux Mixture to the gallon of water.

The wilt is a serious bacterial disease, the germ is carried by the striped Beetles, destroy wilted plants at once and spray or dust with dry Arsenate of Lead to kill the Beetles.

Squash Bugs are sometimes troublesome, if they are suspected begin early spraying with Blackleaf 40, 1 teaspoonful to the gallon of water and repeat at intervals, the pests can be killed only when they are young.

Cut Worms are prevalent in certain seasons in both field and garden crops. They do their work just under the surface of the soil and destroy the growing plants by eating the roots.

The only known method of control is to scatter poisoned bait over the ground where the worms are working.

**Apple Scab.** Trees infested with Apple Scab should be sprayed with Rex Lime Sulphur Solution, 1 pint to a gallon of water, just before the buds open. Again when blossoms have dropped with a ½ gill Rex Lime Sulphur Solution to the gallon of water.

**Onions, Thrips** are very small sucking insects which cause the leaves to turn a silvery or whitish color, and later to curl and twist. Spray with Blackleaf 40 1 teaspoonful to a gallon of water when pests appear repeating as found necessary.

**Cut Worms** use poisoned bait as prescribed for cabbage, being a night worker the worms are usually found near the cut plants, dig out and kill.

**Onion Maggot**, apply liquid poisoned bait with a whisk broom. This is recommended by the government bulletin on war gardening and is made as follows. 1 oz. Sodium Arsenate, 1 gallon of water, 1 pt. of cheap molasses, dissolve the Sodium Arsenate in boiling water and add the molasses. flavor by adding chopped pieces of the vegetable that you are going to spray. Apply with a whisk broom or sprayer.

**Onion Smut** is sometimes troublesome. To prevent sprinkle dusting Sulphur freely over the seeds in the trench and cover lightly with soil.

**Potatoes.** Early and late blight are the fungus' diseases of greatest importance. Bordeaux Mixture should be used for both. Eight level tablespoonfuls to a gal. of water, begin spraying when the plants are about 8 inches high and repeat at intervals of ten days or two weeks throughout the season.

**Colorado Potato Beetle**, Blister Beetle, and Flea Beetle. Spray with dry Arsenate of Lead when Beetles appear repeating as often as found necessary, using two tablespoonfuls to a gallon of water.

**Tomato Fruit Worms**, Horn Worms, and Flea Beetles use dry Arsenate of Lead 2 table spoonfuls to a gallon of water, apply two or three times.

**Late Blight** and Leaf Spot can be controlled by using Borbeaux Mixture 8 level table spoonfuls to a gallon of water, repeat at ten day intervals.

**Poison Bait**, 1 ounce of dry Arsenate of Lead, 1 ounce of Molasses, and eight ounces of Bran, mix with water so that you can form into balls about the size of a plum, the cut worms will leave the ground to eat the bait and will be killed in great numbers.

**Cabbage Maggot**—Small worm which tunnels into the Radish. Sprinkle Tobacco dust along row when seed is planted, or spread sand on which kerosene has been sprinkled along the row when plants are small.

# Grasses and Clover.

## GRASSES

Grass, and especially Clover, seeds are divided into three or four grades and sold to the trade by samples. The varieties we offer are of the highest germinating qualities, and are not to be classed with cheaper grades. Prices quoted are those prevailing when this catalog goes to press (January 15th). When wanted in quantity write for prices and samples, as they are subject to market changes.

**Velvet Turf**—A well-blended and carefully prepared mixture of the finest dwarf growing grasses that will produce a permanent thick and velvety sward of grass in four to six weeks. It is improved both in root growth and firmness of texture by frequent mowing. Where an especially fine lawn is desired we recommend it as the best mixture. Sow one pound to 250 sq. feet of lawn. **1 lb. 50c.**

**Agrostis Canina**—(Rhode Island Bent Grass). Resembles the Red Top, but is of dwarf habit, with shorter and narrower leaves. One of the best grasses for lawns. It adapts itself to almost any soil. 50 lbs. to acre., **Lb. 60c; 10 lbs., \$5.75.**

**Agrostis Stoinifera**—(Creeping Bent). The compact creeping, rooting stems make a strong, enduring turf, improved by constant trampling; does best on low bottom land, especially if somewhat sandy; being of fine texture, makes a valuable lawn. If sown alone use 50 lbs. to acre. **Lb. 90c.**

**Agrostis Vulgaris**—(Red Top). A hardy perennial, succeeds best on moist land, but will accommodate itself to a variety of soils, even to quite dry situations; height 1 to 2 feet; makes a fine hay mixed with Timothy. Solid seed, 30 lbs. to the acre; in chaff, 80 lbs. to the acre. **Solid seed, 1b., 40c.**

**Blue Grass Kentucky**—(*Poa Pratensis*). A true perennial, lasting indefinitely and improving each year. One of the best grasses for lawns; also valuable for pastures, being nutritious and productive. For lawns sow 100 lbs. to the acre. **Lb. 50c; 10 lbs., \$4.75**

**Meadow Fescue (Festuca Pratensis)**—Perennial grows 3 to 4 feet. Roots deep, thus resisting drought. It succeeds on any soil, yields a heavy crop of superior hay, one of the best grasses for pasture, being valuable to mix with other kinds. If sown alone, use 40 lbs. per acre. **Lb. 35c! 10 lbs., \$3.25.**

**Cynosurus Cristatas**—(Crested Dogtail). A stoleniferous perennial. **Lb. 55c.**

**Orchard Grass**—(*Dactylis Glomerata*). One of the grasses most used in permanent meadows, either for pasture or mowing. It is hardy and productive, will grow anywhere and makes excellent hay. Should be cut before it flowers to get the best hay. It stands considerable shade. If sown with other grasses its tendency to grow in tussocks is diminished. Height 3 feet. 50 to 60 lbs. to acre. **Lb. 40c; 10 lbs., \$3.75.**

**Perennial Rye Grass**—(*Lolium Perenne*). A strong hardy growing perennial grass noted for its nutritive qualities. It is equally valuable for both grazing and hay. For lawns it is recommended by many gardeners. If sown thickly it makes a fine lawn. Use 40 lbs. per acre. **Lb. 30c; 10 lbs., \$2.50.**

**Italian Rye Grass**—(*Lolium Italicum*). Practically an annual, although under favorable circumstances will last two or three years. It is a rapid grower, and will withstand extreme temperatures, remaining green throughout the winter and retaining its freshness in the hottest months. When sown thickly with other grasses it makes a dense turf, giving much satisfaction on lawns. Height 1½ feet. 50 lbs. to acre. **Lb. 25c.**

**Pacys Rye Grass**—(*Lolium Perenne*). A carefully selected, short-seeded, dwarf growing strain, suitable for lawns. Makes a fine green turf in three weeks. **Lb. 30c.**

**Timothy**—(*Phleum Pratense*). Produces large crops of hay on moist loamy or clayey soil. It withstands drought, cold and extreme heat. It should be cut when flowering; if left later the hay becomes hard and coarse. Height 2 to 3 feet. 20 lbs. to acre. **Lb. 20c.**

**Soudan Grass**—Soudan Grass was brought into the United States in 1909. It has been thoroughly tested since then and has been found to be a most valuable crop for the West. It stands dry weather and makes a fine crop of hay that is superior to Millet hay and equal to Timothy. Under ordinary conditions the yield is from two to four tons of hay per acre and under irrigation eight and ten tons per acre. In rows it takes from 4 to 6 pounds per acre, and when in drills or broadcast 16 to 24 pounds. **Price per lb., 35c.** Write for prices in quantities.

## CLOVERS

Prices subject to market changes. Write for prices.

**Alfalfa**—One of the most valuable and largely grown forage plants. It requires a rich, deep, well-drained soil. It has a long tap root, in loose soil descending 10 to 12 feet, and withstands great droughts. Should be sown in early fall or spring at the rate of 20 lbs. to the acre. The crop should be cut when the plant is coming into bloom. Will produce 3 to 5 crops of hay in one season. 2 to 3 feet high. Lb., 55c; 10 lbs., \$5.25.

**Turkestan Alfalfa**—It is said to be more productive and hardier than the ordinary variety; also withstands droughts better. Lb., 55c; 10 lbs., \$5.25.

**Alsike or Hybrid Clover**—(*Trifolium Hybridum*). Succeeds best in cold, stiff soil and marshy lands, which are too wet for other varieties. It withstands cold and grows in high altitudes; blossoms make fine honey; a perennial. 1 to 2 feet high. Lb., 60c.

**Bokhara Clover**—(*Melilotus Alba*). Valuable sort for soiling and for ensilage and bees. Grows from 3 to 5 feet high; sown in rich soil may be cut three times; lasts for years, if cut before flowering. 15 lbs to the acre. Per lb., 40c.

**Red Clover**—(*Trifolium Pratense*). On deep, rich soil it will produce two crops in a season; valuable for hay, pasture or for light soiling; 12 lbs. to the acre. Lb. 65c.

**Mammoth Red Clover**—(English Cow Grass). Lasts longer and grows larger than the medium; fine for plowing under. Lb., 65c.

**White Clover**—(*Trifolium Reapens*). Makes an excellent turf and stands constant trampling; dwarf habit, stems creeping and rooting at the joints; spreads rapidly and is very hardy. Used extensively in lawn mixtures. 10 lbs. to the acre. Lb., 80c; 10 lbs., \$7.75.

## FIELD SEEDS

**Buckwheat, Japanese**—Extra large grains; yields enormously; makes good flour and stands up well. No stock.

**Corn**—For Field, Fodder and Ensilage varieties, see page 13.

**Barley**—White Hulless Barley is entirely beardless, half-tine, and when threshed is hulless, like wheat. It produces 35 to 80 bushels of grain per acre. It is better than corn for hogs. Market price. Write for prices.

**Beardless Barley**—Very early and free from beards; makes splendid hay for work horses. It is sometimes impossible to get seed which is absolutely true and it is liable to produce a small percentage of bearded heads. Write for prices.

**Common Barley**—Specially selected and recleaned seed. We will be pleased to furnish samples on request. Write for prices.

**Buckwheat, Silver Hull**—Early and productive. Lb., 10c; 10 lbs., 65c.

**Flax Seed**—Sow about 60 to 90 lbs. to the acre. Lb., 15c.

**Kale, 1000 Headed Cow**—The demand for this wonderful forage plant, proves it to be the most valuable for Pacific Coast dairy and stockmen. Cow Kale should be grown in the same manner as cabbage, rows 4 ft. by 3 ft. apart; can be set as late as July.

**Marrow Kale or Marrow Cabbage**—This is described in Washington State Agricultural Experiment Station Bulletin No. 95 as a valuable dairy and poultry food, in many ways very similar to Thousand Headed Kale, and even more prolific. The plants average 4 to 6 feet in height, with stalks 5 to 6 inches in diameter, and weigh 14 to 20 lbs. The stalks are edible and are relished by cows. The lower leaves are broken off and fed as they mature. Culture the same as for Kale and Cabbage. Oz., 15c; 1/4 lb., 50c.

**Millet, German**—Makes good hay; seed grown extensively for feeding birds. Requires a warm climate. Lb., 15c; 10 lbs., \$1.25.

**Oats American Banner**—A very popular white, head oat. The kernels are short, plump and white; the straw is stiff and stands up well. Ask for prices..

**Oats, Gray Winter**—This Oat is planted extensively throughout the Northwest as a fall or winter Oat. Is well and favorably known, being a good yielder. It is extremely hardy and withstands our most severe winter. The straw is large and strong, not liable to lodge. It stools freely and is splendid as a support for vetch. Samples and prices on request. Lb., 10c; 3 lbs., 25c.

## FIELD SEEDS—Continued

**Peas, Blue Scotch**—A splendid variety, similar to Canadian, except in color, which is bluish green. The peas are small, round, very hard. It is a heavy yielder and ripens evenly. **Lb., 10c; 10 lbs., 95c; 100 lbs., \$8.50**

**Peas, Canadian Field**—The most popular variety; grown extensively in the Northwest. Splendid for hay, ensilage, green feed or to plow under for green manure. **Lb., 10c; 10 lbs., 75c; 100 lbs., \$6.50.**

**Peas Cow—Whip-Poor-Will**—Upright or bush growth; earliest maturing; easily harvested. **Per lb., 25c; 10 lbs., \$2.00.**

**Rape, Dwarf Essex**—One of the best forage plants producing immense quantities of green feed, when grass and other crops are dried up; has yielded as high as ten tons of green feed per acre with a food value double that of green clover; makes excellent pasture for all stock and fine green food for chickens. Thrives on all soils and is ready for use in six or eight weeks from time of sowing. Also valuable for plowing under. Sow same as turnips, from May until September, or sow with grain, using 4 pounds per acre in drills; broadcast use about 8 pounds per acre. **Lb., 25c.**

**Rye**—Cultivated for its straw or cutting green; also valuable to sow with Vetches. Market price.

**Vetches, Spring Tares**—(*Vicia Sativa*). One of the most valuable crops for the Northwest; makes an excellent feed for dairy cows; for best results sow in fall with oats or rye, from 60 to 80 lbs. to the acre. **Lb., 15c; 10 lbs., \$1.40; 100 lbs., \$13.50.**

**Wheat**—We can supply the following varieties which are extensively grown in the Northwest. Choice re-cleaned seed. As prices are subject to fluctuations and often inferior wheat is being offered at tempting prices, you had better ask us for samples and quotations. You will never make a mistake in obtaining the best possible grade for seeding purposes. **Blue Stem**, the best and one of the most profitable; **Turkey Red, Red Fife, Little Club, Red Russian**.

## FLOWER SEEDS

Flowers make a home more cheerful, and as most varieties (and especially the Annuals) are easily grown from seed, no place should be without an assortment. We import all our Flower Seeds (with the exception of a few varieties that are grown in this country) from the BEST GROWERS in Europe, and put the same up in neat lithographed packets.

### Prices subject to market fluctuations

Considering the small cost of flower seeds, the large number of varieties, the gorgeous display when in bloom, more real joy, more genuine pleasure is to be had from floral surroundings, and decorated interiors with cut flowers, than any like investment in the world.

Directions for starting small vegetable and flower seeds, either out doors or in a box.—Select your soil as free as possible of weeds, using a good quality of potting soil. If out doors pulverize thoroughly to depth of six inches, working it fine and firm; if your soil is free of weeds sow broadcast, if not sow in drills to facilitate weeding, covering lightly with a mixture of good soil and sand, using a light spray of water to moisten the surface, keep moist but not wet until plants come up; you may use a canvass or burlap during the day to retain the moisture, remove the canvas or burlap during the night. When plants begin to come up remove the canvas or burlap permanently. Any dryness after seeds sprout is absolutely fatal. Sow one ounce to about 60 to 75 square feet of surface.

**ACHILLEA**—(The Pearl). A hardy perennial, blooms the first year if sown early. Grows about 2 feet high and is covered with pure white double flowers. Fine for cutting. **Pkt., 10c.**

**ACROCLINIUM**—A pretty annual, with everlasting flowers, growing about one foot high. Flower heads should be gathered when young to preserve; a fine plant in a mixed border. Double pink. **Pkt., 5c each.**

**ADLUMIA CIRRHOSEA**—(Mountain Fringe). A hardy biennial climber. The feathery foliage closely resembles the Maiden-hair fern. The flowers are tube-shaped and completely cover the plant; flesh-colored; height 15 feet. **Pkt., 10c.**

## FLOWER SEEDS—Continued

**AGERATUM**—(Floss Flower). One of the best bedding plants, being covered with bloom from early summer until frost. Dark blue, 8 inches. Pkt., 5c.

**AGROSTEMMA**—Free-flowering and easily grown, two feet high; fine for bedding. Silvery white foliage.

Coronaria—(Rose Champion). Perennial; very pretty. Pkt., 5c.

**ALYSSUM**—(Mad-Wort). Maritimum (Sweet Alyssum). Annual of trailing habit; white. Pkt., 5c.

**ALYSSUM**—(Little Gem). Compact dwarf habit, 6 inches high; blooms when quite small and plants covered with a solid mass of white from spring to late autumn. Pkt., 5c.

**ALYSSUM SAXATILE COMPACTUM**—Showy golden-yellow flowers; fine for rockwork; hardy perennial; blooms the first season. Pkt., 10c.

**AMARANTHUS**—Brilliant foliated annuals, growing from 3 to 5 feet high. They thrive best in a hot, sunny location, not too rich soil, and should be given sufficient room to develop their full beauty.

Cadatus—(Love Lies Bleeding). Blood red. Pkt., 5c.

Cruentus—(Prince's Feather). Dark red, feathery flowers. Pkt., 5c.

Tricolor—Joseph's Coat). Leaves red, yellow and green. Pkt., 5c.

**AMMOBIUM GRANDIFLORUM**—Pretty everlasting; of easy culture; flowers white, two feet. Pkt., 5c.

**ANGALLIS**—Showy annual. Plant in sunny situation; two feet high. Choice mixed. Pkt., 5c

**ANEMONE**—(Wind Flower). Pleasing perennial producing a wonderful array of colors; fine for bouquets.

St. Brigid—Semi-double and double, mixed. Pkt., 10c.

**ARABIS**—(Rock Cress or Snow of the Mountains). The earliest of the spring flowers.

The spreading tufts are covered with a mass of flowers; unequaled for rockeries and edgings; withstands drought; perennials. Alpina Nana Compacta. Pure white. Pkt., 5c.

**ANTIRRHINUM**—(Snap Dragon). An old fashioned flower of giant varieties, fine for bedding, blooming continually until late fall; large flowering tall varieties.

Rose—Rich Rose. Pkt., 10c.

Firebrand—Rich Deep Red. Pkt., 10c.

Giant Mixed—Pkt., 5c.

Golden Yellow—Rich Yellow. Pkt., 10c.

Large flowering half dwarf varieties:

Half Dwarf—Mixed. Pkt., 5c.

Daphne—Soft Pink. Pkt., 10c.

Tom Thumb—Mixed. Pkt., 5c.

**AGUILLEGIA**—(Columbine). Coerulea hybrida. Has very long spure. Finest mixed. Pkt., 5c.

**ARCTOTIS GRANDIS**—(African Daisy). A remarkably handsome hardy annual from Africa; easy to grow and always in bloom in bright sunshine, closing in shadow. Pkt., 5c.

**ARISTOLOCHIA**—(Dutchman's Pipe Vine). Perennial climber, bearing large dark purple flowers. Pkt., 5c.

**ARMERIA FORMOSA**—(Sea Pink). Hardy perennial, bearing rosy-pink flowers; fine for edging. Pkt., 10c.

All CROP FARMOGERM (Fertilized Bacteria) increases the yield of any crop and enriches the soil; supplies the growing plant and increases the nitrogen in the soil, improving the quality of the crop... Aids decomposition of soil particles; hastens decaying organic matter, making plant food more available. Price per acre, pkg. \$2.00; 5-acre pkg., \$7.50.

## ASTERS

Asters are one of the most important of summer and autumn flowers. Seeds sown in the open in April and May bloom in September and October. For July and August flowers, sow in hotbeds in March and April and transplant to open ground when 2 to 3 inches high. Annuals 6 inches to 2 feet high.

We obtain all our Aster Seeds from a Western grower, known all over the United States for his splendid stock.

**QUEEN OF THE MARKET**—The best early Aster, of spreading habit, about two weeks earlier than other sorts. White, pink, lavender, mixed. Pkt., 10c.

## FLOWER SEEDS—Continued

**LAVENDER GEM**—This beautiful new Aster of the comet type is an exquisite shade of true lavender, beyond question the finest yet produced. Is free flowering, erect habit, medium early. Every florist should grow this Aster. Pkt., 15c;  $\frac{1}{8}$  oz., 65c.

**IMPROVED GIANT CREGO**—The "Giant Crego" is distinct in every way, and its magnificent flowers, often 6 inches in diameter, are fully equal to chrysanthemums. They have rare beauty of form and brilliant coloring, are very vigorous, and free flowering; blooms are borne on long stems. White, Shell Pink, Rose, Purple, Lavender. Pkt. 15c.

**ASTER-MUM**—A selection from "Giant Comet." Of immense size, resembling Chrysanthemum in form, hence the name "Aster-mum." Plants are about two feet high with good stems. A little earlier than "Crego." Mixed colors. Pkt., 10c.

**HOHENZOLLERN**—Excellent class, with enormous flowers, superb for cutting and exhibiting. Separate colors: white, rose, dark blue and mixed. Pkt., 10c.

**GIANT CRIMSON**—A new late Aster of a dark velvety crimson color. The plants are of a branching habit, but very upright in growth. Very attractive under artificial light. Pkt., 15c.

**PERENNIAL**—Free flowering habit of compact growth; fine for rockeries and mixed borders; mixed. Pkt. 15c.

buys any six 10-cent packets or any four 15-cent packets of the above Finest  
50c American Asters.

**BALLOON VINE**—Cardiospermum (Love in a Puff). A rapid growing annual climber; seed vessels look like miniature balloons; flowers white. Pkt., 5c.

**BALSAM**—(Lady Slipper). Tender annual, two feet high, producing brilliant-colored double flowers in the greatest profusion. Mixed. Pkt., 5c.

**Bellis**—(Double Daisy). The poet's favorite; hardy perennial, blooms the first year from seed from early spring till late in summer.

**Longfellow**—Double pink; very showy. Pkt., 10c.  
Double Mixed. Pkt., 10c.

**The New Double Giant Daisies**—Remarkably fine, true from seed.  
**Monstrosa, Pink**—**Monstrosa White**. Pkt., 25c.

**BRACHYCOME**—(Swan River Daisy). Free flowering dwarf growing annuals, suitable for edging or pot culture. Choice. Mixed. Pkt., 5c.

**BARTONIA**—Producing golden-yellow flowers, very fragrant in the evening. Height two feet. Does not bear transplanting. Pkt., 5c.

**CALENDULA**—(Meteor). Yellow striped orange... Pkt., 5c.

**Prince of Orange**—Like Meteor but darker. Pkt., 5c.  
Mixed Double, sorts, pkt., 5c.

**Calendula**—(Pot Marigold). Showy, free-flowering hardy annuals, about one foot high. Flowers produced in great profusion, showing different shades of yellow. Mixed. Pkt., 5c.

**CALLIOPSIS**—Showy, free-flowering annuals. Excellent for cutting; showy.

**Crown of Gold**—Large golden yellow; fine for cutting. Pkt., 10c.

**Golden Ray**—Yellow and brown; narrow petals. Pkt., 10c.

**CALLIOPSIS**—(Crown of Gold). Large golden yellow; fine for cutting. Pkt., 5c.

**Golden Ray**—Yellow and brown; narrow petals. Pkt. 5c.  
Finest Mixed. Pkt., 5c.

**CAMPANULA**—(Canterbury Bells). A beautiful and well known bell-shaped flower, perfectly hardy.

**Medium**—Hardy biennial, blooms the first year if sown early. Single finest mixed. Pkt., 5c.

**Medium Calyceanthema**—(Cup and Saucer). Cup and saucer shaped flowers; fine for pots or borders. In Rose, White, Blue or Mixed. Pkt., 5c.

**Speculum**—(Venus Looking Glass). Hardy annuals, with single blue flowers. Pkt., 5c.

**COREOPSIS**—Hardy perennial of the Calliopsis family. Pkt., 5c.



1410 FIRST AVENUE, SEATTLE, WASH.

## FLOWER SEEDS—Continued

**GODETEA**—A distinctive little annual with clusters of tiny blue flowers and pale yellow leaves. Very good for early gardens. Pkt., 10c.

**COBaea**—A rapid growing annual climber with pretty bell-shaped flowers in great profusion during the fall months; height 20 to 30 feet. Purple flowers. Pkt., 10c.

**CYPRESS VINE**—(*Ipomoea Quamoclit*). A popular annual climber with delicate fern-like foliage and small star-shaped flowers; 10 feet high. Scarlet, White. Pkt., 5c.

**CLARKIA**—A pretty and easily grown annual; blooms from July to October; 1 to 2 feet high. The flowers are borne all along the stems and resemble the carnation to some extent. Double Salmon pink. Pkt., 10c.

**Double Mixed**, Pkt., 10c.

**COSMOS**—Extra Early. A strong growing annual, covered with beautiful flowers, in white, pink and crimson shades; from July until frost. Fine feathery green foliage; height 3 to 4 feet. White Rose, Crimson. Pkt., 10c.

Mixed, Pkt., 5c.

**Datura**—(*Trumpet Flower*). Ornamental annual with large and showy flowers, hand-some plants, 2 to 3 feet high. Mixed. Pkt., 5c.

**DIANTHUS OR PINKS**—No garden is complete without a few plants of these annual pinks, which are easily grown from seed.

**Chinensis**—(*Chinese or Indian Pink*). Double and showy flowers, with a wide range of colors; choice mixed. Pkt., 5c.

**Dianthus or Pinks, Hedgewigi**—(*Japanese Pink*). Double Mixed, Pkt., 10c.

**Hedgewigi Atropurpureus**—(*Morning Pink*). Very large double flowers, dark crimson. Pkt., 10c.

**Hedgewigi**—(*Eastern Queen*). Rose colored flowers, 2 to 4 inches across; finely striped and stained. Pkt., 10c.

**Imperialis**—(*Double Imperial Pink*). Robust bushy plants with double flowers. White, Red or mixed. Pkt., 5c.

**Plumarius**—(Double hardy garden Pink). Adapted for beds and borders; delightful spicy odor; perennials. Mixed, Pkt., 15c.

**DIMORPHOTHECA**—(*African Golden Daisy*). A showy annual of bushy habit, growing from 12 to 15 inches high; a free bloomer. Pkt., 10c.

**Fine Mixed**, Pkt., 25c.

**DIGITALIS**—(*Foxglove*). Hardy perennial, highly ornamental with flower stalks 2 to 3 feet long, covered with thimble-shaped blossoms. Mixed, Pkt., 5c.

**DOLICHOS**—(*Hyacinth Bean*). A rapid growing annual climber, flowering freely in erect racemes, followed by ornamental seed pods. Mixed, Pkt., 5c.

**ECHINOCYSTIS LOBATA**—(*Wild Cucumber Vine*). Annual climber of quick growth; fine for covering old fences, trees, etc. Pkt., 5c.

**ESCHSCHOLTZIA**—(*California Poppy*). Very attractive annuals for beds or masses; fine cut, glaucous foliage. Very free flowering. One foot high. California—(*State flower of California*). Flowers bright yellow. Pkt., 5c.

Californica—(*Crimson King*). Rich Crimson flowers; very attractive. Pkt., 10c.

Californica Golden West—Orange-colored blossoms, shading to canary yellow at the edges; very large. Pkt., 10c.

California Mandarin—Petals rich orange inside; brilliant scarlet outside. Pkt., 5c.

**GAILLARDIA**—Showy and free bloomers; fine for bouquets and for house decoration. Grandiflora—Hardy perennial; flowers the first season. Pkt., 25c.

Lorenzina—Annual, double; finest mixed. Pkt., 10c.

Picta Drummondii—Annual red and yellow; single. Pkt., 5c.

**GERANIUM**—A superb strain of the finest varieties; very interesting to grow from seed. Choice mixed. Pkt., 25c.

**GEUM**—(*Avens*). A hardy perennial bearing large showy double dark crimson flowers on long stems; fine for bouquets. Pkt., 10c.

**GAULTIERIA**—(*Amurian*). A tall shrub, 6 to 8 feet high, with large, pointed, serrated leaves and clusters of small, bell-shaped flowers.

You must keep the insects off your flowers and fruit if you want to be successful. Use BLACK LEAF 40 for insects on your Flowers.

## FLOWER SEEDS—Continued

**GODETIA**—Attractive free blooming annuals. The plants bloom profusely and bear showy flowers of satiny textures of the most delicate and lovely colors. They do best in rather poor soil.

**Duchess of Albany**—Satiny white, of compact growth. Pkt., 5c.

**Lady Albermarle**—Dark crimson. Pkt., 5c.

**Lady Satin Rose**—Bright carmine; very attractive. Pkt., 5c.

**The Bride**—White and Crimson; very showy. Pkt., 5c.

**Whitney Fulgida**—Crimson scarlet; a superb variety. Pkt., 5c.

**GOMPHRENA**—(Globe Amaranth). One of the most popular of the everlastings, known as Bachelor Buttons; a fine bedding plant; choice mixed. Pkt., 5c.

**GOURDS**—Annuals of very rapid growth with curious fruits and ornamental foliage, excellent for covering verandas, fences, etc. Small ornamental sorts mixed. Pkts., 5c.

**GYPSOPHILIA**—(Baby Breath). Pretty free blooming plants, succeeding in any garden soil. Their misty white panicles of bloom are used for mixing with other cut flowers.

**Elegans**—Pure white hardy annual, 2 feet. Pkt., 5c.

**Panicula**—Hardy perennial, white flowers; a favorite for bouquets. Pkt., 5c.

**HELIANTHUS**—(Sunflower). Annuals, 2 to 6 feet high, fine for back grounds or along fences.

**Californicus fl pl.**—Extra large double. Pkt., 5c.

**Globosus fl. pl.**—Huge flowers, very double; a fine strain. Pkt., 5c.

**Nanus fl. pl.**—Dwarf double; an excellent sort. Pkt., 5c.

**HELICHRYSUM**—(Straw Flower). One of the best everlasting, large flowers and bright colors, prized for winter bouquets; hardy annuals, 2 feet; mixed. Pkt., 5c.

**HELIOTROPE**—(Cherry Pie). A half-hardy perennial highly valued for their scented flowers. Pkt., Mixed, 15c.

**HOLLYHOCK**—(*Althaea Rosea*). One of the most majestic of hardy plants. Although a perennial we advise sowing the seed every year, as the young plants give the best flowers.

**Chater's Superb**—The finest strain of all the Hollyhocks; separate colors, white, golden yellow, salmon-rose, crimson, scarlet, apple blossom, purplish violet or mixed. Pkt., 10c.

**Allegheny**—Mammoth flowers with loosely arranged petals; choice mixed. Pkt., 10c.

**HUMULUS**—(Japanese Hop). Climbing hop, 15 to 20 feet.

**Japonicus**—Very ornamental, foliage dense and a lively green color. Pkt., 5c.

**Variegatus**—The leaves are marbled and splashed with silvery white, light and dark green. Pkt., 5c.

**IMPATIENS**—(*Zanzibar Balsam*). Highly prized annuals, with waxy foliage and semi-transparent branches, which makes it very attractive; 1½ to 2 feet; fine for window culture.

**Holstii**—Brilliant scarlet flowers, very handsome. Pkt., 25c.

**KOCHIA TRICHOPHYLLA**—(Summer Cypress). Annual; form highly decorative bushes; foliage green, turning to fiery red in autumn. Pkt., 5c.

**LARKSPUR**—Hardy annuals of easy culture, with a wide range of colors; very showy; makes fine cut flowers.

**Dwarf German Rocket**—Fine for bedding; 1 foot; choice mixed. Pkt., 5c.

**Tall German Rocket**—Has long showy spikes; excellent for cutting. Pkt., 5c.

**Perennial Varieties**—(*Delphinium*). These are usually taller than the annuals and require more space between the plants; will bloom the first season if sown early; flower spikes long and dazzling; foliage clean and pretty.

**Elatum Hybridum**—Very showy class; finest mixed. Pkt., 5c.

**LAVATERA**—(Annual Mallow). A beautiful and showy annual, two feet high, with cup-shaped pink flowers. Pkt., 5c.

## FLOWER SEEDS—Continued

**LEPTOSIPHON**—Pretty annuals; makes a dense tuft of fine foliage, covered with splendid little flowers. Lilac rose or mixed. Pkt., 5c.

**LINARIA CYMBALARIA**—(Kenilworth Ivy). Hardy perennial, a charming trailing plant, suitable for rock work, vases, etc. Pkt., 10c.

**LINUM**—(Flowering Flax). Free flowering of easy culture.

Grandiflorum Rubrum—(Scarlet Flax). Showy bedding plants, hardy annual; 1 foot. Pkt., 5c.

Perenne—Perennial Flax, very showy; blue; 18 inches. Pkt., 5c.

**LOBELIA**—Very pretty annuals of trailing habit; fine for baskets and bedding; of compact growth, and literally covered with small bright flowers.

Gracilis—Light blue foliage, green trailing. Pkt., 5c.

**LOBELIA**—(Emperor William). Very compact, sky blue. Pkt., 10c.

White Gem—Forms a perfect ball of snow white flowers. Pkt., 10c.

Cardinalis—(Cardinal Flower). Spikes of brilliant scarlet flowers; fine hardy border plant; bloom the first year; 3 feet high. Pkt., 15c.

**LUPINS**—Hardy garden plants, growing from 1 to 3 feet high, bearing spikes of pea-shaped flowers.

Annuals—Tall mixed. Pkt., 5c.

Polyphyllus—Perennial sorts mixed. Pkt., 5c.

**LYCHINS**—Hardy perennial plants; blooms the first year if sown early.

Chalcedonia—(Jerusalem Cross). Scarlet; very fine. Pkt., 5c.

**MARIGOLD**—(Tagetes). An old standard variety of hardy annuals.

Tall African—Fine double mixed; 18 inches tall. Pkt., 5c.

Orange Prince—Double flowers of deep golden orange. Pkt., 10c.

Tall French—Double gold striped, or mixed. Pkt., 5c.

Legion of Honor—Dwarf; golden yellow with large spot of crimson velvet. Pkt., 5c.

Signata Pumila—A dwarf compact bushy Marigold with delicate fern like leaves; densely covered with flowers of golden yellow. A good border plant. Pkt., 5c.

Tall French—Double gold striped; 2 feet. Pkt., 5c.

Dwarf French—Mixed Double; 1 foot. Pkt., 5c.

**MARVEL OF PERU**—(Four o'Clock.) A garden favorite, handsome and free flowering; 2 feet; annual, mixed. Pkt., 5c.

**MAURANDA**—A half-hardy, rapid growing slender climber; flowering the first season, if sown early. Pkt., 10c.

**MIMOSA**—(Sensitive Plant). Tender annual; leaves close when touched. Pkt., 5c.

**MIMULUS**—Perennials, blooming the first year from seed; 1 foot.

Moschatus—(Musk Plant). Small yellow flowers; fine for baskets. Pkt., 5c.

Tigrinus—(Monkey Flower). Fine mixed spotted varieties. Pkt., 5c.

**MIGNONETTE**—(Reseda). No garden is complete without this well-known fragrant plant. The seed can be sown at any time; a very hardy annual; average height 1 foot.

Odorata—Large spikes; very sweet scented. Pkt., 5c.

Machet—Dwarf, sweet scented red flowers. Pkt., 10c.

Paris Market—Excellent for pots; red flowered. Pkt., 5c.

Parson's White—Large spikes; very fragrant; white. Pkt., 5c.

Victoria—Very compact; red. Pkt., 10c.

**MESEMBRYANTHEMUM**—Beautiful dwarf edging plants, blooming the whole summer. Pkt., 5c.

Crystallinum—(Ice Plant). Flowers white, icy foliage. Pkt., 5c.



## FLOWER SEEDS—Continued

**DWARF VARIETIES**—8 inches high.

Snowball—Snow white. Pkt., 10c.

Fire Ball—Fiery-scarlet. Pkt., 15c.

Fine Mixed. Pkt., 10c.

Decussata—(Perennial Phlox). Very hardy; 3 feet high; mixed. Pkt., 10c.

**PORTULACA**—(Moss Rose). Hardy annual; one of the best plants for edging and rock work; will thrive most any place.

Single Varieties—Choice mixed. Pkt., 5c.

Double Sorts—Finest large varieties, mixed. Pkts., 10c.

## PANSY

Masterpieces—(Frilled Pansy.) Curled wavy petals, fine rich colors. Pkt., 15c.

Pansy—Greenhouse Special; one of the finest strains of the mastodon. Choice mixed. Pkt., 25c.

Orchid Flowered—This is the finest strain known, the flowers being of finest form and Orchid colors. Pkt., 15c.

Giant Varieties—Mixed. Something that will please the most fastidious. Pkt., 15c.  
Fine Mixed. Pkt., 5c.

Kaufman's Superb Mixture—A strain of the finest and largest imported stock. None better in varieties and size. Pkt., 25c.

Bronze—A beautiful strain of rich bronze; strong and robust growth. Pkt., 15c.

Prince Henry—Large flowering, dark, very fine. Pkt., 15c.

Emperor William—Very showy, ultramarine blue. Pkt., 10c.

Faust—(King of the Blacks). Almost coal black. Pkt., 10c.

Lord Beaconsfield—Large purple violet, top petals white. Pkt., 10c.

Mad. Perret—Wine shades, very large and showy flowers. Pkt., 10c.

Giant White—Dark eye. Pkt., 10c.

Yellow—Black eye. Splendid. Pkt., 10c.

Yellow Persian—Pure yellow. Without eye. Pkt., 10c.

## POPPIES

Poppies are one of the most desirable flowering plants, with a wide range of colors. Will not stand transplanting. Sow where they are to remain.

Carnation Flowered—Large double pink flower of brilliant colors; mixed. Pkt., 5c.

Admiral—Single paeony flowered, white, broad scarlet band, very effective. Pkt., 5c.

Dainty Lady—Rose mauve; very showy. Pkt., 5c.

Mikado—White margined purple. Pkt., 5c.

Nudicaule—(Iceland Poppies) Dwarf, bright yellow; very attractive; bright green. Pkt., 10c.

Glaucum—(Tulip Poppy.) Large tulip-shaped flowers of brilliant scarlet. Pkt., 5c.

Shirley—Extra fine strain, semi-double; scarcely two flowers alike. Mixed, Pkt., 5c.

Paeony Flowered—Large showy flowers, resembling a double paeony; mixed colors. Pkt., 5c.

**ORIENTAL POPPY**—A charming summer flowering hardy plant. Very brilliant flowers. Grows about 2½ feet high. Pkt., 10c.

Oriental Mixed, Pkt., 5c.

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Commercial Fertilizers Profitable—A 100-pound bag of high grade fertilizer will contain more soluble and available plant food than 4000 pounds of stable manure of average quality. How much cleaner and easier to handle a 100-pound bag than two tons of manure, and no weed seeds to contend with.

**FLOWER SEEDS—Continued**

**Primula**—(Primrose). The beautiful and charming Chinese fringed Primroses in the home or conservatory.

**Auricula**—A favorite of great beauty, 9 inches high; choice mixed. Pkt., 15c.

**Chinensis Frimbriata**—Fringed variety, choice colors, single or double mixed. Pkt. 25c.

**Japonica**—(Japanese Primrose.) Very fine, mixed. Pkt., 10c.

**Elatior**—(Polyanthus.) Showy, free flowering plant, suitable for either pot or out door culture; mixed. Pkt., 10c.

**Obconia**—A profuse bloomer, bearing on long stems, heads containing 10 to 15 flowers; mixed. Pkt., 25c.

**Polyanthus**—(English Primrose.) Fine for out door culture; yellow. Pkt., 10c.

**PUERARIA THUNBERGIANA**—(Kudzu Vine.) Beautiful Japan climber, hardy, perennial, with fragrant purplish violet Wisteria-like flowers. Pkt., 10c.

**PYRETHRUM**—Perennials of easy culture, handsome herbaceous plants.

**Aureum**—(Golden Feather.) Foliage bright yellow, very pretty border plant; height 6 inches. Pkt., 5c.

**Hybridium**—Hardy perennial daisy-like flower; mixed. Pkt., 5c.

**RICINUS**—(Castor Oil Bean.) Ornamental foliage plants with bright colored fruits; 5 feet; mixed. Pkt., 5c.

**Cambodgensis**—Black leaves and stem; assumes different shades as the plant increases in size. Pkt., 5c.

**RUDBECKIA**—(Cone Flower.) Bi-color. A superb free flowering annual; 2 feet high; long stems; golden yellow with brown spots at the base; fine for cutting. Pkt., 10c.

**SALPIGLOSSIS**—(Painted Tongue). A favorite annual of easy culture, beautiful orchid-like flowers; mixed. Pkt., 5c.

**SCARLET RUNNER**—Bean. Vines and flower ornamental, brilliant scarlet pea-like blossoms; a good shell bean. Pkt., 10c; lb., 30c;

**SALVIA**—(Flowering Sage). Perennials, blooming the first year from seed, bearing long spikes of flower in great profusion.

**Splendens' Brilliant Scarlet**—Very showy. Pkt., 10c

**SCABIOSA**—(Morning Bride.) Handsome border plants; succeeds in any good garden soil; double flowers, very showy. Pkt., 5c.

**SCHIZANTHUS**—(Butterfly or Fringed Flower.) Elegant and free?blooming, of easy culture; 2 feet; mixed. Pkt., 5c.

**STOCK GILLIFLOWER**—One of the most popular annuals. It is unsurpassed for brilliancy and diversity of color, fragrance, profusion and duration of bloom.

**German Ten Weeks**—Splendid perpetual blooming class, separate colors, white, blood red. Pkt., 10c.

**Choice Mixed.** Pkt. 10c.

**Winter or Biennial Brômpton**—Half hardy biennials, bushy plants, with beautiful double flowers, violet or mixed. Pkt., 10c.

**THUNBERGIA**—(Black-Eyed Susan). Rapid growing annual; very attractive; choice mixed. Pkt., 5c.

**VERBENA**—A pretty annual creeper, with neat foliage and fine flower umbels, useful for beds, borders or window boxes.

**Candidissima**—Large trusses of purest white flowers. Pkt., 10c.

**Defiance**—Brilliant scarlet, fine for bedding. Pkt., 10c.

**Drummondi**—(Montana). Bluish lilac. Pkt., 10c.

**Striata**—Striped variety; very pretty. Pkt., 10c.

## FLOWER SEEDS—*Continued*

**Venosa**—Purplish heliotrope flowers. Pkt., 10c.

**Mammoth Hybrida**—Extra large flowers; mixed. Pkt., 10c.

**Pink Shades**—Extra fine mixture of pink varieties. Pkt. 10c.

**Purpurea**—Purple variety; very pretty. Pkt., 10c.

**Hybrida**—Fine mixed. Pkt., 5c.

**VIOLETS**—(*Viola*). A free flowering hardy perennial, easily grown, but seed takes a long time to germinate; all have great beauty and fragrance.

**Cornuta**—Purple Queen). Large single blue. Pkt., 10c.

**Alba**—A fine white variety. Pkt. 10c.

**The Czar**—Large blue flowers; fine for forcing. Pkt., 10c.

**Queen Charlotte**—Large dark blue; fine for forcing. Pkt., 10c.

**Odorata**—The well-known sweet-scented Violet. Pkt., 10c.

**VISCARA**—Hardy annuals, very effective in massing. Many sorts mixed. Pkt. 5c.

**WALLFLOWER**—Well-known fragrant half hardy perennials, with spikes of beautiful scented flowers.

Tall Single Mixed. Pkt., 5c.

Dwarf Single Mixed. Pkt., 5c.

Tall Double Mixed. Pkt., 5c.

Dwarf Double Mixed. Pkt., 5c.

**ZINNIA**—(Youth and Old Age). Most brilliant and showy annuals.

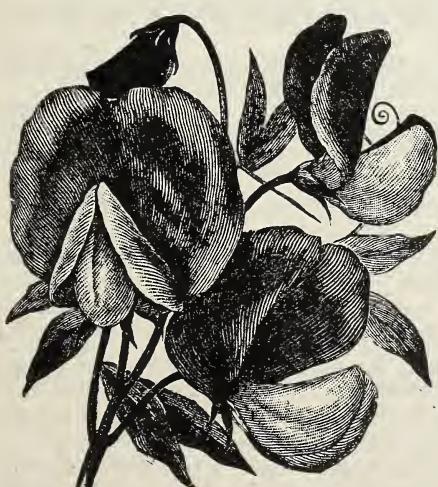
**Crispa**—Long petals, gracefully curled and crested. Pkt., 5c.

**Queen Victoria**—Very large flowering, pure white; a handsome variety. Pkt. 5c.

**Grandiflora Robusta**—Giant Zinnias with huge flowers; an excellent class; finest mixed. Pkt., 5c.

## SWEET PEAS

**Culture of Sweet Peas**—Plant as early in the spring as conditions will permit. Seeds should be sown at the rate of one ounce to 15 feet. Make a trench about three or four inches deep, planting the seeds in the bottom about two inches deep, pressing the soil down firmly. After the plants are well up thin to four or five inches apart, draw the soil around them until the trench is filled above the level. This gives a depth to the roots, preserving the moisture. Keep the ground well worked and watered if needed, an occasional soaking being better than a daily sprinkling. Keep the flower cut close and a pruning of the tips of the vines will also aid in prolonging the season of bloom and insure flowers.



**Afterglow Spencer**—This is one of the most distinct varieties in cultivation. The general color effect might be described as electric shades of blue and rosy mauve, the standard being reddish mauve, becoming deeper in tone toward the base, while the wings are of a rich electric blue color. Pkt., (20 to 30 seeds), 10c.

**America—Spencer**—The largest and finest of its class. Pure satiny white, striped and slashed crimson; 4 flowers of perfect form borne on long stems. Pkt., 10c; oz., 30c.

**Apple Blossom Spencer**—The ground tint is primrose, standard rose showing veins of deeper rose, wings light carmine, the whole color overspread on primrose. Pkt., 10c; oz., 30c.

## JACOB'S KAUFMANN CO.'S SEED CATALOG

## SWEET PEAS—Continued

- Asta Ohn**—Spencer. Pinkish lavender; wings showing more clear lavender than the standard. Good size and the Spencer form. Pkt., 10c; oz., 30c.
- Barbra**—A superb salmon colored self. Flowers require to be slightly shaded. Pkt., 15c; oz., 40c.
- Blanche Ferry Spencer**—Standard wide and erect, bright rose pink; wings are creamy white, tinted with rose. Pkt., 10c; oz., 30c.
- Countess Spencer**—Bright, clear, pink showing a little deeper at the edges; long stems. Pkt., 10c; oz., 25c.
- Captain of the Blues, or Waverly Spencer**—Pure purple; the margins of the petals are marbled. Pkt., 10c; oz., 25c.
- Decorator**—A rich rose overlaid with terra cotta shading to a bright orange at base of wings. Of vigorous growth, the vines flower profusely, bearing on long stems three and four beautifully waved flowers. Pkt., 15c; oz., 40c.
- Dobie's Cream**—We consider this the best deep cream or primrose colored variety, nicely waved abundance of four bloom sprays, and most floriferous. Pkt., 10c; oz., 30c.
- Elfrieda Pearson**—The flowers are of extra large size. They are nicely disposed on extremely long stems, invariably borne in fours; color is a lovely pink. Pkt., 10c; oz., 35c.
- Florence Nightingale Spencer**—Large, wavy flowers. Lavender with a bluish cast, of fine shape and good substance. Pkt., 10c; oz., 30c.
- Fiery Cross**—Beautifully waved and fluted flowers are borne freely in threes and fours, well placed on long stems, color a scorching fire red or scarlet, without any shading, and which scintillates thus adding a blowing fire like sheen, which radiates over the flower. Pkt., 10c; oz., 45c.
- Geo. Herbert**—A most magnificent Spencer; bright, rosy, carmine, flowers of the largest size. Pkt., 10c; oz., 30c.
- Hercules**—A magnificent pink self, of truly giant proportion, undoubtedly the best of its class. A flower of great substance; the broad spreading and beautifully waved standard frequently measures two and one half inches in diameter. Pkt., 10c; oz., 35c.
- Helen Lewis Spencer**—Crimson orange wings, orange rose open form with wavy edges. Pkt., 10c; oz., 30c.
- Illuminator**—A brilliant orange-salmon ground, illuminated with bright cerise pink; a rare and wonderful color combination of great beauty. Pkt., 10c; oz., 35c.
- King Edward Spencer**—Brilliant red, the best of the red or crimson sorts; a true Spencer type. Pkt., 10c; oz., 25c.
- King Manual**—This is a giant flowered maroon or deep chocolate colored variety that is sure to give pleasure to all who admire these rich shades. Pkt., 10c; oz., 35c.
- King White**—The newest and most magnificent white; of Spencer type; the immense petals, gracefully frilled, are a pure white of wonderful substance. King White has the most enthusiastic endorsement ever accorded a sweet pea. Pkt. 10c; oz., 35c.
- Masterpiece**—Spencer Giant flowered type. Large, wavy, lavender tinted mauve. Pkt., 10c; oz., 40c.
- Margaret Madison**—The flowers are a clear azure-blue self, a color that is so effective in bouquets or buttonholes. Pkt., 10c; oz., 35c.
- Maud Holmes Spencer**—A brilliant sun-proof crimson of the largest size. Of true Spencer form, wavy and fluted. Pkt., 10c; ½ oz., 20c; 1 oz., 30c.
- Martha Washington**—The ground color is pure white, the edges of the standard and wings being heavily picoted with deep rose; as the flower ages the backs of the standard and wings become flushed with rose. Pkt., 10c; oz., 30c.

Commercial Fertilizers Profitable—A 100-pound bag of high grade fertilizer will contain more soluble and available plant food than 4000 pounds of stable manure of average quality. How much cleaner and easier to handle a 100-pound bag than two tons of manure, and no weed seeds to contend with.

## 1410 FIRST AVENUE, SEATTLE, WASH.

**SWEET PEAS—Continued**

Ryotomasa—A bright rose color, petals plain, pointed, flat, petals large, flowers six to eight per stem, flowers very fragrant. Pkt., 10c; oz., 30c.

**Marie Corelli Spencer**—White with a picotee edge of blue, large and handsome. Pkt., 10c; oz., 30c.

**Margaret Atlee**—The most perfect of the duplex type yet produced. Color is a warm salmon pink suffused over a cream ground. Flowers are of very large size and are borne almost uniformly four on a stem. Pkt., 10c; oz., 30c.

**Mrs. Townsend Spencer**—White with a picotee edge of blue, large and handsome. Pkt., 10c; oz., 30c.

**Mrs. Cuthbertson**—An exquisitely beautiful bi-color of giant size. The standard is a clear rose pink in color, wings white, slightly flushed rose. Flowers invariably produced in four on a stem of great length. Pkt., 10c; oz., 25c.

**Mrs. C. W. Breadmore**—A lovely "picotee" of true Spencer type. The large flowers are borne profusely three to four to a stem; they are distinctly pink edged upon a cream ground. Pkt., 10c; oz., 30c.

**Mrs. Hugh Dickson**—One of the most charming varieties yet obtained. The color is a rich pinkish apricot on cream ground, shading lighter toward the center of the flower. The gigantic flowers are uniformly of the best Spencer. Pkt., 10c; oz., 30c.

**Mrs. Rountzahn Spencer**—Color, a soft straw tinted with blush pink, shading to apricot and rose at the edges, with a distinct rose margin; of immense size, one of the finest Spencers. Pkt., 10c; oz., 30c.

**Mrs. Walter Wright Spencer**—Rose purple, self-colored, wavy petals. Pkt., 10c; oz., 25c.

**Nubian**—The finest of the maroon or chocolate Spencer class, throwing flowers of exquisite size and color. Pkt., 10c; oz., 30c.

**Othello Spencer**—Deep maroon; has a rich velvet effect; the best of the dark varieties. Pkt., 10c; oz., 35c.

**Primrose Spencer**—Clear, distinct primrose, without a trace of other colors; fine large, wavy standard and wings. Pkt., 10c; oz., 35c.

**Princess Victoria Spencer**—White, bluish and pink edges. Pkt., 10c; oz., 30c.

**R. E. Felton**—One of the best of the lavender varieties, grand for exhibition and garden decoration; strong grower; gives plenty of flowers. The individual flowers are very large and refined; the color is a clear rich lavender. Pkt., 10c; oz., 35c.

**Rosabelle**—Undoubtedly the largest and most beautiful of the deep rose selves. The attractive rose—crimson color is heightened by a distinct white blotch at the base of the standard and wings. The flowers are very much waved or crimped, and always of extra large size. Pkt., 10c; oz., 45.

**Royal Purple**—A rare new shade in Sweet Peas, a rich purple, almost a true royal, a color that does not exist in the Grandiflora type. Pkt., 10c; oz., 50c.

**Senator Spencer**—Of finest Spencer form and large size. The coloring is a combination of deep claret and chocolate, striped and flaked on a light heliotrope ground. The coloring, though dark, is brilliant and attractive. A free flowering, vigorous grower of greatest merit. Pkt., 10c; oz., 30c.

**Sterling Stent**—Color, a deep salmon suffused with orange, the flowers are of superb Spencer form, particularly by artificial light. Pkt., 10c; oz., 35c.

**Thomas Stevenson**—The most brilliant orange scarlet, standard of deeper color than the wings. The flowers are of the finest Spencer form and generally come four to the stem. Pkt., 10c; oz., 40c.

**Vermillion Brilliant**—The flowers are of perfect form. The bold, erect standard is well waved and fluted, of large size, beautifully rounded and finished well below the keel. The wings are of the same intense pure scarlet, making a uniform self color through. Pkt., 10c; oz., 40c.

**White Spencer**—The finest white Sweet Pea, beautiful and graceful, with large fluted and wavy petals, long, stout stems, bearing uniformly four well-poised blossoms of delightful fragrance. Pkt., 10c; oz., 30c.

**Wedgewood**—A true self, being a beautiful Wedgewood blue; entirely free from the purple shading found in other blue Spencers. Wedgewood is also larger, grows more vigorously and blooms more freely than other blues. Pkt., 10c; oz., 45c.

### SWEET PEAS—Continued

**Yarroway**—A bright rose pink with clear creamy base; the flowers are exquisitely waved and many are duplex; usually produced in fours on long stems. Pkt., 15c; oz., 50c.

**Jacob Kaufmann Co. Giant Orchid flowering Spencer Mixture.** We have included in this combination nearly all of the Spencers, making it a rare treat, and a lasting pleasure to the grower. Those preferring to grow all sorts together rather than separate colors, will find this unsurpassed. Pkt., 10c; oz., 25c.

**Everlasting or Hardy**—Free flowering perennial climbers. Continually in bloom. Fine for cutting. Carmine or mixed. Pkts., 10c.

**Cupid Sweet Peas**—In all straight colors, etc.

**California Giants**—As their name implies, are of very large size and beauty.

**Sweet Peas**—Aphis and Mildew are likely to occur on sweet peas. Use 1 gill Rex L. S. S. and 1 teaspoonful of Blackleaf 40 to each gallon of water spraying lightly and often, or may be dusted with equal part dusting sulphur and tobacco dust.

## Fruit and Ornamental Trees, Etc.

We deliver only choice, healthy trees, bushes, etc., and use every endeavor to see that you get only such stock, as will insure you success. A great many of the failures with nursery stock are due to the manner in which they have been handled after being taken from the nursery.

Immediately on receipt of trees, shrubs, etc., have them set or carefully heeled in until such time as you can set them out permanently; do not allow the roots of trees shrubs or plants to be exposed to the sun or wind; often an hours exposure will kill the hardiest tree.

When planting, dig a hole large enough to accommodate the root system without bending or bunching the roots, also somewhat deeper than you expect to set the tree, so that you can fill in several inches of good soil mixed with well rotted manure or bone meal, before setting the tree, etc. Then set the tree, placing the roots as nearly as possible in a natural position; fill in opening about half with fine dirt, then grasp the tree lifting and shaking it slightly, letting the fine dirt sift in and around the root system, thoroughly saturate the fine dirt just placed with water, so that the dirt will adhere to the roots, then fill in balance of opening with dry dirt packing firmly in and around the tree, setting the tree somewhat deeper than it was in the nursery. Always prune the root system of all bruised or broken ends of roots, making clean cuts from the under side of root outwardly before planting the tree, prune top back until it is not larger than the root system.

Our stock is all budded or grafted on two year old roots, therefore when you get a one year old tree you have a three year old root; a two year old tree you have a four year old root; and so on, you have the root two years older than the tree, which is sufficient to insure a strong and rapid growth.

We are in close connection with one of the largest and best nurseries in the Northwest, and can supply all orders with good, strong, healthy stock, free from insects and true to name. All orders will be packed at the nursery, it will, therefore, take from two to five days before they can be shipped. Kindly keep plant orders separate from seed. No charge for packing.

The following list comprises the varieties suited to this climate. If other varieties are wanted let us know. We may be able to supply same.

We do not substitute unless we receive special instructions to that effect. If stock is sold out money will be refunded.

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**Commercial Fertilizers Profitable**—A 100-pound bag of high grade fertilizer will contain more soluble and available plant food than 4000 pounds of stable manure of average quality. How much cleaner and easier to handle a 100-pound bag than two tons of manure, and no weed seeds to contend with

## FRUIT AND ORNAMENTAL TREES, ETC.—Continued

### APPLES

One year or light two year old 4 to 6 feet, each 75c; extra heavy two and three year old, each \$1.00. Big specimen trees, each \$1.50.

#### SUMMER

✓ **Early Harvest**—Yellow, medium size.  
✓ **Red Astrachan**—Deep crimson, large.

**Yellow Transparent**—Yellow, very early; best quality.

#### FALL

✓ **Duchess of Oldenberg**—Red and yellow  
✓ **Fau'me**—(Snow). Deep crimson streaked, flesh snowy white.  
✓ **Gravenstein**—Bright red and yellow, one of the best for this climate.

✓ **Waxen**—Rich yellow, crisp tender and juicy.  
✓ **Wealthy**—Yellow shaded with deep red.  
✓ **Yellow Bellflower**—Rich yellow, highly flavored.

#### WINTER

✓ **Arkansas Black**—Medium size, dark red, a late keeper.  
✓ **Baldwin**—Red, a leading winter apple.  
✓ **Delicious**—Thrifty grower, quality and flavor unsurpassed. Very sweet.  
✓ **Grimes Golden**—Golden yellow, high quality.  
✓ **Jonathan**—Red, fine for table or market.  
✓ **King of Tomkins County**—Yellowish, shaded with red.  
✓ **Mammoth Black Twig**—Red, large, late keeper.  
✓ **Northern Spy**—Greenish, brown ribbed; good keeper; fine quality.  
✓ **Rhode Island Greening**—Greenish yellow; rich and tender.

✓ **Rome Beauty**—Yellow with red, aromatic taste.  
✓ **Red Rome Beauty**—New; bright red; finest quality; similar to Rome Beauty.  
✓ **Spitzenberg Esopus**—Splashed red, yellowish, juicy. Delicious rich flavor.  
✓ **Stayman Winesap**—Improved Winesap.  
✓ **Wagener**—Dark red; flesh firm; sub-acid. Early and continuous bearer.  
✓ **Winesap**—Dark red, medium size. Excellent late keeper.  
✓ **Winter Banana**—Golden yellow, shaded red; large; excellent flavor.  
✓ **Yellow Newton Pippin**—Fine flavor; one of the best keepers.

#### CRAB APPLES

**Florence**—Large red.  
**Hyslop**—Dark crimson.

**Yellow Siberian**—Small golden yellow.

#### CHERRIES

One year or light two year old four to six feet each, \$1.00. Select extrt heavy two and three year old each, \$1.50 to \$2.00. Very big trees \$2.50 to \$3.50 each.

#### SWEET

✓ **Bing**—Very large; black with solid meat.  
✓ **Black Republican**—Black medium size.

**Black Tartarian**—Medium black, very early  
✓ **Lambert**—Very large dark red; fine shipper.

**Royal Ann**—Light red on yellow ground.

#### SOUR

✓ **Early Richmond**—(Kentish). Red, medium size.  
✓ **English Morello**—Medium to large; blackish red.

**Late Duke**—Very large; dark red.  
✓ **May Duke**—Medium size; dark red.  
✓ **Montmorency**—Large bright red.

## FRUIT AND ORNAMENTAL TREES, ETC.—Continued

### PEARS

One year or light two year old four to six feet, each \$1.00. Extra heavy two and three year old, each \$1.00 to \$1.25. Big trees, \$1.50 to \$2.50.

Bartlett—Large; bluish cheek; August.

Beurre d'Anjou—Large. Best late keeper; October and November.

Beurre Clairgeau—Late, large.

Comice—Yellow; October and November.

Flemish Beauty—Extra large, good keeper.

Fall Butter—Good fall pear.

Winter Bartlett—Large, good quality.

Winter Nellis—Medium size; good winter pear.

Worden Seckle—Small reddish cheek. Nov.

### PLUMS

One year or light two year old \$1.00 to \$1.25. Selected two and three year old \$1.50 to \$2.50 each.

Blue Damson—Fruit small; dark purple.

Bradshaw—Large, dark purple, juicy.

Burbank—(Japan). Red cheek on yellow ground.

Climax—Large dark red; flesh yellow; juicy.

Columbia—Large; dark purple; sugary.

Green Gage—Small; greenish yellow.

Jefferson—Large; yellow, red cheeks.

Peach Plum—Largest size; red cheek; early.

Yellow Egg—Largest size; yellow sweet.

### PRUNES—Same Price as Plums

French—(Petite d' Agen). Medium; reddish-purple.

Sugar—Large; purple; rich; sweet.

Italian—Dark purple; sweet. Drying and shipping variety.

Tennant—Large size; purple; Italian variety.

Silver—Large; sweet; good dryer.

Tragedy—Medium size; dark purple; rich, sweet.

Hungarian—Largest; bright red.

### PEACHES

One and two year old \$1.00 to \$1.50 each.

Alexander—Large; Clingstone variety; very juicy.

Elberta—Large; yellow, red streaks; rich and juicy.

Early Crawford—Large yellow; magnificent; popular.

Phillips Cling—Large yellow; rich and high flavored.

Salway—Large yellow flesh; late.

### APRICOTS

Selected one and two year old, \$1.00 to \$1.50 each.

Moorpark—Orange; flesh bright orange; large.

Royal—Large yellow with orange cheek.

Blenheim—Large; deep yellow.

### NECTARINE

Boston—The best variety. Each, \$1.00 to 1.50.

### QUINCE

One two and three year old, \$1.00 to \$2.00.

Champion—Large; of excellent flavor. Prolific.

Orange—Large; golden color.

### MULBERRY

One and two year old, \$1.00 to \$1.50 each.

Downings Everbearing—Very large black.

Russian—Small fruit; tree hardy and prolific.

### FIGS

Large well branched four to six feet, each, \$2.50.

# NUT TREES

## ALMONDS

One year old, \$1.00. Heavy, selected two and three year old, \$1.25 to \$2.00.

I. X. L.—Large; single kernel, soft shell. ✓ Nonpareil—Large, full kernel; thin shell.

## CHESTNUTS

Selected heavy two to three year old three to four feet \$1.00 to \$1.50.

American Sweet—Valuable for timber and nuts. early.

Japanese Chestnut—Dwarf grower; bears Spanish or Italian—Large nuts; produce abundantly.

## FILBERTS—*Hazelnut*

Three to five feet, each, \$1.00 to \$1.50.

English—Full flesh; sweet. Barcelona—Very large, first quality.

✓ Du Chilly—Full fleshed, largest grown.

## WALNUTS

One to two feet 75c; two to four feet, \$1.00; four to six feet; \$1.50; six to eight feet \$2.50 eight to ten feet, \$3.50 to \$5.00.

Butternut or White Walnut—Large long nut; bears earlier than the English. thrifty bearer.

English Walnut—(Franquette). Hardy, English Walnuts—Grafted, 4-6 ft., each, \$2.50.

## BLACKBERRIES

Evergreen—Each 25c; doz., \$2.50.

Himalaya Giant or Everbearing—Each, 25c; Large plants, 35c to 50c.

Kittatiny—Each 25c; doz., \$2.50.

Lawton—Each 25c; doz., \$2.50.

New Mammoth—Each, 35c; doz., \$3.50.

Loganberry—(Hybrid). Two year, each, 50c; doz., \$5.00.

✓ Phenomenal—Two year, each, 35c; doz., \$3.50. Extra large plants, 50c.

## CURRANTS

35c each; Dozen, \$3.50; Extra large, 50c each.

✓ Cherry—Red.

✓ Black Naples—Black.

✓ Fays Prolific—Red.

Boskoop Giant—Black.

✓ Perfection—Red.

White Grape—White.

## GOOSEBERRIES

Oregon Champion—Each, 35c; doz. \$3.50. Large plants, each, 50c.

Poorman—Large yellow. Each, 50c; doz., \$5.00.

Pearl—Yellowish green. Each, 50c; doz., \$5.00.

✓ Red Jacket—Josselyn). Large prolific. Each, 50c; doz., \$5.00.

## RASPBERRIES

Cuthbert—Red. Each 15c; doz., \$1.50. Per 100, \$5.00.

Plum Farmer—Blackcap. Each, 25c; doz., \$2.50.

Superlative—Red. Each, 25c; doz., \$2.50.

✓ St. Regis—Everbearing. Each, 35c; doz.

Gregg—Blackcap—Each, 25c; doz., \$2.50.

\$3.50.

~~new~~ Commercial Fertilizers Profitable—A 100-pound bag of high grade fertilizer will contain more soluble and available plant food than 4000 pounds of stable manure of average quality. How much cleaner and easier to handle a 100-pound bag than two tons of manure, and no weed seeds to contend with.

## GRAPEs

Each, 35c; per dozen, \$3.50. Selected heavy stock 50c each.

- Agawam—Large pink.
- Brighton—Large pink
- Concord—Black, very hardy.
- Campbells Early—Black.
- Delaware—Light red.
- Moores Early—Large blue.
- Moores Diamond—White, early.
- Niagara—Yellow, large and sweet.
- Worden—Black.

## STRAWBERRIES

Clarks Seedling.	Per doz	25c	per 100	\$1.35	Marshall .....	25c	1.35
	Per doz.		Per 100		Americus, Everbearing....	40c	2.75
Clarks Seedling.....		25c		\$1.35	Progressive, Everbearing..	40c	2.75
Magoon .....		25c		1.35	Superb, Everbearing.....	40c	2.75

## Fruit Pests and their Control

Properly sown seed is not all that is necessary to insure sound healthy fruit and vegetables. The multiplication of insect pests and fungus troubles have made it impossible to grow crops successfully without timely and proper spraying. It is no longer necessary to use haphazard methods of selecting spray materials and applying them, as spraying is now recognized as a science.

**Dormant Treatment.** Trees or bushes of any kind known or thought to be infested with San Jose Scale, Oyster Shell Scale, Scurvy Sscale etc., or with Pear Leaf Blister Mite should be sprayed thoroughly with Rex Lime Sulphur 1 pint to a gallon of water, when Aphis or other sucking insects are present use 1 teaspoonful of Blackleaf 40 added to each gallon of the spray material. If Bud Moth or Case Bearers are present add to the above spray two level table spoonfuls of dry Arsenate of Lead to each gallon of spray. Badly infested trees should be sprayed in the fall and again in the spring while the trees are dormant. Never spray your trees while they are wet as you do not get as good results. This combination can be used with perfect safety until the leaves are the size of mouse ears.

**Pre-Blossom Treatment** should consist of 1 gill Rex Lime Sulphur, 2 level table spoonfuls of dry Arsenate of Lead, 1 teaspoon of Blackleaf 40 to each gallon of water. It is for Apple Scab, Cedar Rust, Canker Worm, Tent Caterpillar, Case Bearer, and Aphis. If the season is cold and rainy the treatment is very important. But if warm and the trees are pushing fast it may sometimes be omitted provided the dormant treatment has been made after the buds show green. The application should be made after the cluster buds have separated but before the blossom have opened.

**Clayx Treatment** is very important and should consist of Rex Lime Sulphur Solution 1 gill, dry Arsenate of Lead 2 level table spoonfuls, water one, gallon and applied when about  $\frac{3}{4}$  of the blossoms have fallen. This treatment protects the small fruit from Scab and Cedar Rust, and is very important for the Codling Moth, Curelia and all leaf eating insects. If Aphis are present use Blackleaf 40 1 teaspoonful to each gallon of the spray.

In three weeks from the full bloom period use the Calyx treatment the second time. This is for Scab, Sooty Blotch, Bitter Rot and Black Rot, Codling Moth, Aphis and various leaf eating insects.

**Seven Weeks Treatment**, this is made seven weeks from the full bloom period, and should consist of Bordeaux Mixture 8 tablespoonfuls to each gallon of water, dry Arsenate of Lead 2 tablespoonfuls level to each gallon of water. This treatment is for Blotch and Bitter Rot and for the protection of the apple from the Codling Moth, and in raining seasons is important for preventing Sooty Blotch and Fly Speck.

**Ten Weeks Treatment** is from date of full bloom. Use the same formula as for the seven weeks treatment, It is important for Codling Moth, various leaf eating Caterpillars, late Scab, Blotch and Bitter Rot. The above treatments are for Apple, Pear, Quince, Cherry, and Plum trees, etc.

**Peach Trees.** Treatment for San Jose, etc., should be the same as for Apple trees.

**FRUIT PESTS AND THEIR CONTROL—Continued**

**Second Treatment** as soon as the young fruit have broken the shuck that encloses them the trees should be sprayed with Dry Arsenate of Lead 2 level table spoonfuls to each gallon of water. This is for Curculio. Repeat the above treatment in about ten days for the same trouble.

**Fourth Treatment** dissolve one teaspoonful of pulverized glue in one quart of warm water; add one teacupful of fine sulphur and work to a fine paste, add water to make one gallon, add two level table spoonfuls of Dry Arsenate of Lead. This treatment is for Scab and Brown Rot.

**Fifth Treatment** about a week or ten days before the fruit is ripe the trees should be sprayed with the Sulphur paste but omit the dry Arsenate of Lead. This is for Brown Rot and is very particularly important on most early sorts.

**Cherry and Plum.** As soon as the young fruits have broken the shuck that encloses them the trees should be sprayed with dry Arsenate of Lead 2 table spoonfuls level,  $\frac{1}{2}$  gill of Rex Lime Sulphur Solution to each gallon of water. This is for Curculio, Brown Rot, and shot hole. In ten days repeat, and in ten days again repeat for the same troubles. After the fruit is picked the trees should again be treated with the same mixture. This is for Shot Hole, Mildew and Slugs.

**Raspberries, Currants, Gooseberries, etc.,** should be sprayed with Rex Lime Sulphur Solution while in the dormant state using one pint Rex Lime Sulphur to each gallon of water.

**Second Treatment.** Leaf devouring worms appear very soon after the foliage develops, sharp watch should be kept for these pests and when they appear the bushes should be promptly sprayed with dry Arsenate of Lead 2 table spoonfuls level to each gallon of water, or dust promptly with a mixture of 2 parts of dusting Sulphur and one of dry Arsenate of Lead.

**Third Treatment.** In about ten days repeat the spray using 8 table spoonfuls of Bordeaux Mixture, and 2 level table spoonfuls of dry Arsenate of Lead to each gallon of water. This is for Currant worms, Mildew and Leaf Spot, or you may use the dusting treatment as in second treatment.

Additional treatments are often necessary to prevent defoliation from leaf spot diseases.

**Grapes First Treatment** Use Bordeaux Mixture 8 level table spoonfuls to each gallon of water to which add 2 level table spoonfuls of dry Arsenate of Lead. This treatment is for Steely Beetle, Berry Worm and Black Rot.

**Second Treatment** should be used shortly after the blossoms have dropped. It is for Curculio, Berry Worm, Black Rot and Downy Mildew and Anthracnose.

**Third Treatment,** Repeat the first treatment when the fruits are the size of peas. This is for Root Worm, Rose Chafer, Black Rot and Downey Mildew. If Leaf Hoppers are appearing add one teaspoonful of Blackleaf 40 to each gallon of the mixture.

**Fourth Treatment.** This treatment should be made about two weeks after the third treatment spray the plants as in the first treatment. This is for Black Rot, Downey Mildew, Powdery Mildew etc. If Leaf Hoppers are still present use Blackleaf 40 as in treatment number three.

**Strawberries, First,** just as the blossoms begin to open spray the plant with dry Arsenate of Lead 2 level table spoonfuls to each gallon of water. This is for Strawberry Weevil, Leaf Roller and Saw Fly. dust the plant with a mixture of 2 parts of dusting Sulphur and 1 part of dry Arsenate of Lead.

## JACOB KAUFMANN CO.'S SEED CATALOG

## FRUIT PESTS AND THEIR CONTROL—Continued

Second, when the blossoming period is nearly over repeat the first treatment. This is for Weevil and Mildew.

**Shrubbery.** Many kinds of Shrubbery, such as Rose, Lilac, Flowering Quince, Hawthorne, Privet and the like are attacked by San Jose Scale and other Scale insects. Such plants should be sprayed in the dormant condition with Lime Sulphur, Solutino, 1 pt. to 1 gallon of water.

If Apples and Pears are to be grown, Hawthornes and other members of the Rose family should be sprayed in the summer at the same time and with the same materials as the Apples and Pears.

The various leaf eating Caterpillars that appear on ornamental plants are readily destroyed if the plant are sprayed with dry Arsenate of Lead 2 to 3 level table spoonfuls to each gallon of water.

**Woolly Apple Aphis.** This insect has two forms, one above and one below the ground. Through the summer season there is a continuous flow of the insects up and down the tree. Very many can be caught by banding the tree with tanglefoot. Spray with Blackleaf 40, using a paint brush to paint out or break up the web formations where the ordinary spraying would have no effect on account of the web in which they are encased. Keep the brush well saturated with the Blackleaf 40 while painting out the webs. Dig the soil away

nearly to the root system and saturate well with Lime Sulphur Solution 1 to 8 parts of water, using it freely. Or use Tobacco dust or stems, or soot ashes or strong soap suds poured at base of tree.

When plant lice appear use 1 teaspoonful of Blackleaf 40 to each gallon of the spray, doing the work thoroughly especially on the under side of the leaves.

**SHADE AND ORNAMENTAL TREES**

Ash, Mountain—4-6 ft., \$1.00; Specimen trees from \$1.50 to \$5.00.

Beech, Purple—6-8 ft. \$2.50 to \$5.00.

Birch, Cutleaved—4-6 ft. \$1.50; 6-8 ft. \$2.50.

Birch White or Yellow—4-6 ft., \$1.00; 6-8 ft., \$1.50; 8-10 ft., \$2.50 to \$5.00.

Catalpa, Speciosa—6-8 ft.; \$1.50 to \$2.00.

Catalpa, Bungei—(Chinese) Each \$2.50, to \$5.00.

Chestnut, American—4-6 ft. \$1.00; 6-8 ft., \$1.50 to \$2.50.

Chestnut, Horse—Red flowering. \$1.50 to \$3.50.

Chestnut Horse—White flowering; 8-10 ft., \$2.50; 10-12 ft., \$3.50 to \$5.00.

Elm American—6-8 ft., \$1.00; 8-10 ft., \$1.50 to \$2.50.

Hawthorn, Double, Paul's Scarlet—6-8 ft., \$1.50; Extra large, \$2.00 to \$5.00.

Hawthorne—Pink, same sizes and prices as in red.

Hawthorn—White, same sizes and prices as in red.

Linden, American and European—6-8 ft., \$1.50 to \$2.50.

Laburnum (Cytisus) Golden Chain—5-6 ft. \$1.00; Extra large, \$2.50 to \$3.50.

Linden, American and European—6-8 ft., \$1.50 to \$2.50.

Locust Black—6-8 ft., \$1.00; 8-10 ft., \$2.50.

Locust Honey—5-8 ft., \$1.00 to \$2.50.

Linden, American and European—6-8 ft., \$1.50 to \$2.50.

Locust Honey—5-8 ft., \$1.00 to \$2.50.

Our High-Grade Fertilizers supply the necessary plant foods. They will increase your crops and double the money invested. See page 52.

To destroy Caterpillars, use Katispray on nests of Caterpillars, one minute will do the work, it penetrates the web and kills them instantly.



## DWARS PLANTS

- Barberry, Darwinii and Stenophylla**—(Evergreen). 50c, 75c and \$1.00.
- Barberry Dulchess**—Blue berries in winter. 35c, 50c and \$1.00.
- Barberry Dulchess Nana** — 35c, 50c and \$1.00.
- Barberry Thunbergii**—(Deciduous) Dwarf red berries. 25c, 35c and 50c.
- Boxwood, Dwarf**—For borders; small plants, each, 20c; per 100, \$15.00.
- Boxwood**—Golden and Silver variegated. For rock work, 75c to \$1.00.
- Cotoneaster Microphylla** — (Evergreen). 50c, 75c and \$1.00. Large plants, \$1.50.
- Cotoneaster Horizontalis**—50c, 75c, \$1.00, \$1.50 to \$2.50 each.
- Crataegus Pyracantha**—(Evergreen). Each 50c, 75c and \$1.00.
- Euonymus Radicans**—Green and variegated 35c and 50c each.
- Heather, Scotch**—In varieties, each, 50c, 75c, \$1.00 and \$1.50.
- Hydrangea Paniculata Grandiflora**—For hedges, \$15.00 to \$25.00 per 100.
- Hypericum**—For rockeries and covering of steep banks, per dozen, \$1.00 to \$1.50; per 100, \$6.00 to \$10.00.
- Juniper Chinensis**—Dwarf compact \$2.50.
- Juniper Procumbens**—Green and golden, Juniper Sabina—Green and golden silver variegated. \$1.50 each.
- Privet**—(*Ligustrum Amurense*). Small, round leaved, white flowers in summer, and in winter covered with small black berries. Smal plants for hedges, per 100, \$5.00. Larger plants 25c to \$1.00 each.
- Privet Golden**—Bushy plants. Each, 50c to \$1.00.
- Privet Orafolium**—Hedge plants 1-2 ft., \$8.00 per 100; large plants, each 25c and 50c.
- Privet Common**—Six inch, \$3.50 to \$5.00 per 100.
- Spirea Van Houttei**—50c. Smaller plants, prices on application.
- Veronica Buxfolia**—Small plants, 15c to 25c. Big plants 50c to \$1.00.
- Veronica Incana**—Silver blue foliage, flowers violet blue. Good for rockery or bankks. Same prices as Buxilolia.
- Veronica Travesii**—Tall bushy growing plants, small 10c each; 6 in. bushy sizes, 25c, 35c, 50c, 75c and \$1.00.
- Vinca Major**—(Periwinkle). Dark glossy leaves, pale blue flowers. For rockeries, banks or to hang over cement walls, 25c each.
- Vinca Major Variegata**—For pots, each, 25c; per dozen, \$2.50.
- Yew, Dwarf Golden** — (*Taxus Hibernica Aurea*). Small plants 6 ins. to 1 ft., \$1.50 to \$2.50.
- Yucca Recurva Glauca and Filamentosa**—Broad leaved evergreen. Small plant, \$1.00 each.

## HARDY DECIDUOUS FLOWERING SHRUBS—Continued

- Snowball (Vibunum)**—Large plants, 50c, 75c to \$1.00.
- Snowball, Standards**—\$1.50 to \$2.00 each.
- Snowball, Japanese**—3-4 ft., 50c; 4-6 ft., \$1.00.
- Snowberry**—White berries, 35c to 50c.
- Spirea Anthony Waterer**—Red, sizes 35c, 50c and 75c.
- Spirea Budlia Flux**—Blue, 35c, 50c and 75c.
- Spirea Caryopteris**—Blue, 50c to 75c.
- Spirea Prunifolia**.
- Spirea Van Houttei**—Bridal wreath; 35c, 50c and 75c.
- Sumac**—4-6 ft., 50c, 75c, and \$1.00.
- Tamarix African**—Each, 50c to 75c.
- Weigela, Eva Rathke**—Dark red, 50c to \$1.00.
- Weigela**—Pink, red and white, 50c to \$1.00

## LILACS—Double Named Varieties

All named varieties, \$1.00 to \$2.50 each.

- Alphonse Lavelle**—Blue shaded violet.
- Chas. Joly**—Red purple; finest of the darks
- Belle Nancy**—Dark blue.
- Dejussie**—Lilac blue.
- Humboldt**—Lilac blue.
- Emillie Lemoine**—Rosy lilac.

- Lemoine fi. pl.**—Double white.
- Leon Simoj**—Blush crimson red.
- Mme. Lemoine**—White.
- Marechal de Bassompierre**—Rosy carmine.
- President Grevy**—Blue.
- Rubra Marley**—Red.

**Virginieve**—Soft pink; new color pink.

**LILACS—Single Flowering Sorts**

\$1.00, \$1.50, \$2.00 and \$2.50 each.

**Alba**—Large and pure white.**Chas. X**—Large reddish purple.**Louis Van Houtte**—A good variety.**Marie Legrays**—Large white; best forced.**Negro**—Purple violet; very dark.**Single White**—Each 25c, 50c, 75c and \$1.00**Single Purple**—Each, 25c, 50c, 75c, and \$1.00.**BROAD LEAVED EVERGREENS****Acuba Japonica**—1 to 1½ ft. \$2.00. 1½ to 2 ft., \$2.50 to \$3.50.**Azalea Hinode-girl**—Bright red, \$1.50 to \$5.00.**Barberry Darwinii**—Small glossy leaves; flowers golden yellow. \$1.50 to \$2.50.**Barberry Dulchess**—Blue berries in winter. Each, 35c, 50c, \$1.00.**Barberry Dulchess Nana**—Each 35c, 50c, and \$1.00.**Barberry Fortuni**—Each \$1.00.**Barberry Stenophylia**—Very dark leaves, each, \$1.00.**Boxwood Green**—Trimmed in various shapes. 50c, \$2.00 to \$15.00.**Boxwood**—Golden and silver variegated. Each, 50c to \$2.00.**Broom Scotch**—Yellow. Each 35c to 50c. Extra large, 75c, \$1.00 to \$2.50.**Broom Scotch**—Trimmed to Standards. Each, \$1.50 to \$3.50.**Broom Dwarf Scotch**—Yellow. Each, 50c to \$1.50.**Broom**—White. Each, 50c to \$1.50.**Broom**—Red. Each, 75c to \$1.50.**Broom Spanish**—Yellow. Each, 50c to \$1.50.**Camelia**—Red, white and pink. Each, \$3.50, \$5.00 to \$10.00.**Cotoneaster Microphylla**—Dwarf, 35c to \$1.00. Large plants, \$1.50 to \$2.00.**Cotoneaster Simonsii**—Tall, large plants, 75c; \$1.00 to \$1.50.**Crataegus Ppracantha**—(Fire Bush), 75c and \$1.00.**Daphne**—Large bushy plants, \$2.50 to \$5.00.**Heather, Scotch**—In varieties, 50c, 75c to \$1.00.**Holly**—English (*Ilex aquifolium*). All of transplanted every three years. Most of them are berried and al can be moved without danger. Specimen plants, 5-10 ft., \$5.00 to \$10.00. Grafted berry bearing on seedling roots; 6-inch, \$1.00. Low bushy plants in green and variegated foliage, \$1.50 to \$2.50. 3-4 ft. berried, \$3.50 to \$5.00. Seedlings 6-inch, 25c to 50c; 2-3 ft., 75c to \$1.00.

Extra large, \$10.00 to \$20.00.

**Kalmia Latifolia**—(Mountain Laurel). Each \$1.00, \$1.50 to \$2.50.**Laurel English**—(*Laurus Cerasus*). From 25c to \$1.50 each. Extra fine specimen plants, \$2.00 to \$5.00. Very large, \$7.50 to \$10.00.**Laurel English**—Standard with or without tubs, \$5.00, \$7.50 to \$10.00.**Laurel, Portugal**—Each, 75c, \$3.00 and \$5.00.**Laurustinus**—Each 50c to \$2.50.**Lavender**—Large plants 35c and 50c.**Magnolia Grandiflora**—\$1.50 to \$3.50.**Mahonia Aquifolium**—\$1.00 to \$2.50.**Privet**—All kinds see under the head of dwarf plants.**Rhododendron**—Named grafted varieties, in all colors and shades 1 to 1½ ft., 5 to 10 bloom buds. Each \$3.50. 10 to 20 buds, \$4.50 to \$6.00.**Veronica Travesii**—(Tall). Small plants 10c to 35c. Extra large 50c, 75c, \$1.00 to \$1.50.**Yucca Recurva Glauca**—Each \$1.50. Extra large, \$2.50 to \$5.00.**Yucca Filamentosa**—Each 50c and 75c.**HARDY VINES AND CREEPERS****Amelopsis Quinquefolia**—Virginia Creeper). Each 50c to \$1.00.**Amelopsis Veitchii**—Boston Ivy). Each, 75c to \$1.00.**Amelopsis Engelmannii**—Improved Boston Ivy. 50c.**Artistolochia Sipho**—(Dutchmans Pipe). 50c, 75c and \$1.00.**Bignonia Radicans**—(Trumpet Creeper). Each 50c, 75c and \$1.00.**Clematis**—2 years old, 75c, 3 year old \$1.00.**Dutchess of Edinburgh**—Double white.**Clematis, Henri**.—White. 2 year old 75c, 3 year old, \$1.00.**Clematis Jackmanni**—Purple. Same as Henryi.

## HARDY VINES AND CREEPERS—Continued

**Clematis Madame E Andre**—Red. Same as Henry. 75c.  
**Clematis paniculata**—Rapid grower. White 75c.  
**Clematis Viticella**—Rapid grower. Blue 75c.  
**Clematis Montana**—White, 50c.  
**Eunonymus Radicans**—Evergreen, Green and Variegated, 50c to \$2.50.  
**Honeysuckle**—Fragrant Dutch. Yellow and red. Each, 50c and \$1.00.  
**Honeysuckle, Halleana**—Japanese Evergreen. White 50c and \$1.00.  
**Honeysuckle Sempervirens**—Red, 75c and \$1.00.

**Honeysuckle Variegated leaved**—Yellow, 50c and \$1.00.  
**Hypericum Evergreen**—Yellow flowers, 15c each; per dozen, \$1.50.  
**Ivy, English**—Evergreen. 15c, larger 25c to 50c each.  
**Jasmine Nudiflorum**—Yellow. Each, \$1.00.  
**Jasmine Officinalis**—White, 50c to \$1.00.  
**Wistaria Chinensis**—Purple, \$1.00 to \$2.50.  
**Wistaria Chinensis**—White. \$1.00 to \$2.50.  
**Wistaria Multijuga**—Purplish or lilac colored. Extra large, \$1.00 to \$5.00 each.  
**Wistaria Multijuga**—White, extra large, \$1.00 to \$2.50.  
**Vinca Major**—(Periwinkle). Evergreen. 15c; \$1.50 per doz.

## CONIFERS, EVERGREENS

**Abies Concolor**—(Colorado Fir). \$2.50 to \$4.50 each.  
**Araucaria Imbricata**—(Monkey Puzzle or Chili Pine). 6 to 18 inches, \$3.50.  
**Arborvitae**—(Or Thuya), Lobbi... 2-3 ft., \$1.50; 3-4 ft., \$2.50 to \$4.00.  
**Arborvitae Occidentalis Pyyamidalis**—2-3 ft., \$1.50 to \$3.00.  
**Arborvitae Siberica**—2-5 ft., \$1.50 to \$3.00.  
**Arborvitae, Golden**—1½ to 3 feet., \$1.50 to \$2.50.  
**California Red Wood**—(Sequoia Gigantea) 2½ to 5 ft., \$3.50.  
**Cedrus Atlantica**—2-3 ft., \$1.50.  
**Cedrus Atlantica Glauca**—2-3 ft., \$2.50.  
**Cedrus Deodora**—2-3 ft., \$2.50.  
**Cryptomeria Elegans**—Compact. 1½ to 2½ ft., \$1.50 to \$3.00.  
**Cypress Lawsoniana**—2-3 ft., \$1.50; 3-4 ft., \$2.50.  
**Cypress Alumini**—Blue, 1½ to 2 ft., \$1.50. 2-3 ft., \$2.50, 3.50 to \$5.00.  
**Cypress Lutea**—Golden, 1½ to 2 ft., \$1.50; 2-3 ft., \$3.50.  
**Cypress Minima**—Blue, very dwarf, about 1 ft., \$2.50 to \$5.00.  
**Cypress Triump of Boskoop**—Blue, 1½ to 2½ ft., \$2.50; 3-4 ft., \$3.50 to \$5.00.  
**Cypress Wisseli**—1½ to 2 ft., \$2.50.  
**Juniper Chinensis**—(Chinese). Dwarf, \$2.50.  
**Juniper Chinensis Aurea**—Dwarf, \$3.00.  
**Juniper Chinese Procumbens**—Sprawling, \$1.00 to \$2.00.  
**Juniper Communis**—(English). 1 to 2 ft., \$1.00 to \$2.00.  
**Juniper Aurea**—1½ to 2 ft., \$1.00 to \$2.00.

**Juniper Hibernica**—(Irish), 1½ to 2 ft., \$2.50; 2-3 ft., \$3.50 and \$5.00.  
**Juniper, Swedish**—\$1.50 to \$2.50.  
**Juniper, Sabina**—Green, Trailing, \$1.00 to \$3.00.  
**Juniper, Sabina**—Variegated, trailing, \$1.00 to \$3.00.  
**Juniper, Virginiana**—(Red Cedar, 2 to 3½ ft., \$1.50 to \$3.00.  
**Juniper, Virginiana Glauca**—2-3 ft., \$3.00; 4-6 ft., \$5.00.  
**Pine Dwarf Mugho**—(Pinus Montana Mughos). Compact plants, 1 ft., \$1.50 to \$3.50.  
**Retinaspora Crispis**—Best Golden Retinaspora. Compact, 1½ ft., \$2.50 to \$3.50.  
**Retinaspora Ericoides**—Bushy plants, \$1.50 to \$2.50.  
**Retinaspora Filifera Aurea**—Golden, 2 ft., \$2.50; 2 to 3 ft., \$3.50.  
**Retinaspora Pisifera Aurea**—Golden, 1½ to 3 ft., \$2.50 to \$3.50.  
**Retinaspora Plumosa**—1 to 2 ft., \$1.50; 2-3 ft., \$2.50; 3-4 ft., \$3.50.  
**Retinaspora Squarrosa Glauca**—Bluel, ½ to 2 ft., \$2.50; 2-3 ft., \$3.50.  
**Sequoia Gigantea**—(California Red Wood) 2½ to 3 ft., \$1.50 to \$2.50.  
**Spruce**—(Picea), **Excelsa** (Norway Spruce) Dark green, 1 to 2 ft., \$1.00; 2-3 ft., \$1.50 to \$2.50.  
**Spruce, Kosteriana**—Blue, grafted. 1-2 ft., \$2.50 to \$3.50.  
**Spruce Pungens**—(Colorado Blue Spruce). 1-2 ft., \$2.50; 2-3 ft., \$3.50.  
**Tew, English**—(Taxus baccata). 1½ to 3 ft., \$3.50; 3-5 ft., \$5.00 to \$10.00.

## CONIFERS, EVERGREENS, *Continued*

**Yew, English Golden**—(*Baccata aurea*). 1 to 2 ft., \$3.00 to \$5.00; 2-4 ft., \$6.00 to \$10.00.

**Yew, Irish**—(*Hibernica*). 1½ to 2 ft., \$3.00; 2-3 ft., \$4.50; 3-4 ft., \$5.00 to \$7.50.

**Yew Irish Golden**—(*Hibernica aurea*). 1 to 1½ ft., \$3.50; 2-3 ft., \$5.00:

**Yew, Irish Silver Variegated**—(*Hibernica argenteo-variegata*). Same prices as Golden.

# ROSES

### Planting and Care

In our favored section Roses attain a perfection seldom equaled, but one cannot expect them to thrive and bloom unless you care for them. We offer the following simple suggestions.

**Soil**—Any good, well-drained garden soil, enriched with fertilizer, will give excellent results. If heavy clay soil, mulch well with burnt earth and manure, rotted sod or leaf mold.

**Watering**—When setting out, water regularly until roots are well set, then about once a week, unless the ground is very dry; in such cases more often. Do not get the foliage wet after a hot day. This causes mildew.

**Finally**—Keep the surface well worked around the roots. This is as necessary as water or fertilizer.

When planting cut back freely, and the bush will recover quickly.

**Abbreviations**—T., Tea; H. T., Hybrid Tea; H. P., Hybrid Perpetual; Poly, Polyanthus.

The prices do not include postage. If roses are to be sent by mail, postage will be 6¢ each, or 30¢ per dozen additional. We recommend that plants be shipped by express when possible, as we can pack them better, they reach destination in much better condition, and the cost is very little, if any, more.

**TEA ROSES**—Have always been admired for their delicious fragrance, and their delicacy of coloring. The Tea Roses do not require the same pruning recommended for the Hybrid Teas; cut out all thin wood, and cut back the stronger shoots to a prominent eye.

**HYBRID PERPETUAL ROSES**—The collection here offered embraces as complete a range of colors as it is possible to bring together in such a number of plants, with freedom of flowering, perfect form, fragrance, hardiness and general excellence.

**RAMBLER ROSES**—The Rambler Rose has captured the world, and surely no plant has proven more satisfactory. They are hardy and bear flowers in innumerable quantities, thousands of them to a single plant. We know nothing in the Rose family that will compare for freedom of bloom and brilliancy of colors and hardiness.

**HYBRID TEA ROSES**—Everblooming Hybrid Tea Roses. The time has come when the Hybrid Tea or everblooming rose has found its place at the head of all roses. We have a rose with the free flowering qualities of a Tea Rose, the hardiness necessary for out door planting, and the rich brilliant and varied colors of all other classes.

**CLIMBING ROSES**—Hardy, large flowering; the lavish profusion of bloom on climbing roses; literally hundreds of flowers on each plant; their beautiful colors and exquisite fragrance render them unequaled for covering houses, arbors, pergolas, fences, and boundary walls.

**TWO YEAR OLD FIELD GROWN ROSES**—Our stock of roses include such kinds as we find most desirable and the best for this climate. They are all large, sturdy field grown plants, 2 years old or more.

### BEAUTIFUL ROSES OF RECENT INTRODUCTION

**Admiral Ward**—Deep velvety red, with darker shadings, good foliage; free bloomer. \$1.25.

**Alexander Hill Gray**—Deep sulphur yellow with a strong tea fragrance. 75c.

**American Beauty**—H. P. Pink, large but not a fine rose for the garden; has a pe-

uliar attractive fragrance not found in any other rose. 75c.

**Anatoine Revoier**—H. T. Deep rosy flesh on yellow ground. 75c.

**Arthur Goodwin**—Coppery orange red; changing to salmon pink. 75c.

**Augustus Hartmann**—Brilliant red flushed

- with orange, very large and well formed. \$1.00.
- Avoca**—Crimson scarlet; large and full. 75c.
- Baby Rambler**—Pol. Pink everblooming, very dwarf. 75c.
- Beauty de Lyon**—Coral red shaded yellow, large and full. 75c.
- Bessie Brown**—H. T. pink, of great substance, strong grower. 75c.
- Betty**—Copper rose, shaded gold. 75c.
- Black Prince**—Dark Maroon. 50c.
- British Queen**—Pure white sometimes tinted pink on outside petals. 75c.
- Capt. Hayward**—Dark velvety red, large and full. 50c.
- Chateau Des Clos Vougeat**—Velvet crimson, shaded dark maroon. 75c.
- Cecil Brunner Poly**—Very small pink buds, profuse bloomer. 50c.
- Cheerful**—Brilliant, pure orange flame, flowers very large, full and fine form; rich green foliage; free from mildew. \$1.50.
- Columbia**—Peach pink, deepening in color as flowers expand, strong grower, and free bloomer. \$2.00.
- Constance**—Rich orange yellow, distinctly streaked and splashed with crimson, long pointed buds. \$1.50.
- Conrad F. Meyer**—Clear silver rose; large full and fragrant. 75c.
- Countess of Gosford. H. T.**—Clear velvet, pink, base of petals sulphur-yellow. 75c.
- Dean Hole**—Silver carmine, shaded salmon, fine form. 75c.
- Dorothy Page Roberts**—Coppery pink, suffused with apricot yellow. 75c.
- Druschki H. P.**—(Snow Queen. Pure white, long pointed buds. \$1.00.
- Duchess of Wellington**—Intense saffron yellow, tinted copper an very deep crimson. \$1.25.
- Edgar M. Burnett**—Clear delicate flesh pink of unusual substance, strong free grower with rich green foliage. \$1.50.
- Edward Hawley, H. T.**—Bright velvety scarlet, medium size. 75c.
- Etoile de Lyon T.**—Pure lemon yellow, long handsome buds resembling the Marschal Niel. 75c.
- Etoile de France, H. T.**—Deep velvety crimson, good foliage... 50c.
- Farbenkonigen**—(Queen of colors). Large and full color, carmine and rosy crimson overlaid. \$1.00.
- Florence Forrester**—White with a satiny silver sheen, long buds and a fine form when open. \$1.50.
- Florence Pemberton, H. T.**—Creamy white with pink tint, perfect form. 75c.
- General Jacqueminot, H. P.**—An old fashioned dark red rose. 50c.
- General McArthur, H. T.**—Bright red, one of the best for bedding. 50c.
- Gen. Sup., A. Jensen**—Deep glowing carmine, long stiff stems, of good form and a free bloomer. \$1.00.
- George Dickson**—Velvety dark crimson, with brilliant scarlet, large full and fragrant. 75c.
- George C Waud**—Glowing orange vermillion shaded bright scarlet; long buds, fine form and a strong grower. \$1.00.
- Gorgeous**—Deep orange, yellow and reddish copper, beautifully blended large and full, long strong stem, and dark green foliage. \$1.25.
- Glorie de Lyonnaise**—White tinted yellow, large, full and good form. 75c.
- Glorie de Cedane Guinnisseau**—Brilliant vermillion red shaded deep velvety red, large full, of beautiful form. \$1.00. ....
- Gruss an Teplitz, H. T.**—Bright glowing scarlet, a grand bedding rose. 50c.
- Harry Kirk, T.**—Deep lemon yellow, passing to primrose at edges. 75c.
- Heinrich Munch**—Flesh pink (light pink druscky) one of the best roses, a strong erect grower. \$1.00.
- Her Majesty**—Color a La France pink, a strong grower. 75c.
- Hon. E. A. Binham**—Pure rosy pink, large and beautiful. \$1.25.
- Hoosier Beauty**—Flowers dark crimson shaded with maroon and veined with black; petals remarkable substance, like crimson velvet. \$1.00.
- H. V. Machin**—Grand scarlet crimson, full size and good form; the coloring is very intense, the buds long and well formed. \$1.50.
- Hugh Dickson, H. P.**—Intense velvety red, one of the leading varieties. 50c.
- Irish Elegance, H. T.**—Bronze orange scarlet. 75c.
- Irish Fire Flame H. T.**—Fiery orange red, the most brilliant colors imaginable. \$1.00.
- J. B. Clark, H. T.**—Bright deep red, and old but good bedding rose. 50c.
- Jonkheer L. Mock, H. T.**—Deep clear pink, a very attractive color, a splendid upright grower of good form. 75c.
- Joe Hill, H. T.**—Clear golden copper, edging with salmon pink. 75c.
- Juliet**—Outside of petal old gold, interior rich rosy red changing to deep rose as flowers expand. 75c.

- Kaiserin A. Victoria H. T.**—Cream white, very good for cut flowers. 75c.
- Killarney Queen**—Sparkling cerise pink, improved Killarney. \$1.00.
- Killarney Double**—Creamy white, large and double. 75c.
- Lady Hillingdon, H. T.**—Deep apricot yellow base, petals chrome yellow, long slender buds. 75c.
- Lady Ashton**—Soft rose, shaded yellow at base; long stem. 75c.
- Lady Battersea, H. T.**—Deep cherry crimson, shaded orange. 75c.
- Lady Pirrie H. T.**—Outside of petal deep coppery red, inside salmon flushed with copper. \$1.00.
- Lady Ursula, H. T.**—Flesh pink, gracefully reflexed petals, large, full and of great substance. 75c.
- La France, H. T.**—With slight tinge of pink, full and fragrant. 50c.
- Laurent Carie, H. T.**—Brilliant velvety carmine, shaded bright scarlet a handsome rose and robust grower. 75c.
- Lady Mary Ward**—Rich orange apricot, very attractive of fine form and good habit. \$1.50.
- Liberty**—Rich, velvety red. 75c.
- Le Progress, H. T.**—Saffron yellow, flowers large and full. 75c.
- Louise C. Breslau**—Coral pink shaded chrome yellow, bud long and pointed, large and fine form. \$1.00.
- Lyon, H. T.**—Shrimp pink shaded red and chrome yellow. \$1.00.
- Los Angeles, H. T.**—Coral pink shaded gold, buds long and pointed; extra large and finest form. \$1.50.
- Lady Greenall**—Intense saffron orange, zoned on deep cream white ground, \$1.25.
- Lady Roberts**—Rich apricot yellow, base of petals coppery red shaded with orange. \$1.00.
- Madam Abel Chatenay, H. T.**—Vermillion and salmon pink, a very free bloomer and handsome rose.
- Madam Leon Pain, H. T.**—Salmon pink overlaid with silvery white, orange center. 50c.
- Madam C. Testout H. T.**—Clear pink, strong grower and profuse bloomer. 50c.
- Madam Ed Herriott, H. T.**—The buds are long and pointed, of a deep coral color, shaded to orange yellow at the base of petals, finely formed flowers of wonderful shade of rosy scarlet flushed with shrimp and apricot tints. \$1.00.
- Madame E. Rostand**—Clear pink with salmon shading, reddish orange center, beautifully tinted... \$1.00.
- Mad Jules Grolez**—Clear deep rose pink shaded at base of petals. \$1.00.
- Madame Melaine Soupert, H. T.**—Golden yellow, shading to orange, copper at base of petals, large flowers on long straight stems. \$1.00.
- Madame Ravery**—Golden yellow with orange center, long slim buds. \$1.00.
- Maman Cochet, T.**—Clear pink one of the best for summer cut flowers. 75c.
- Maman Cochet T.**—White, same as the above except color. 75c.
- Margaret Dickson Hamill**—Delicate colored. Deep shell like petals, flushed with carmine on the back. \$2.00.
- Marquise de Sinity**—Of the Lyon type, color intermingling of sulphur yellow, gold and copper. \$1.00.
- Mary Countess of Ilchester**—Deep crimson carmine, double and fragrant. \$1.00.
- Mildred Grant, H. T.**—Silver white, edge of petals sometimes shaded pink. 75c.
- Miss Kate Moulton, H. T.**—Soft pink, with reverse of petals shaded deep pink, good foliage. 75c.
- Miss Alice de Rothschild**—A deep yellow that does not fade, good shade and texture. 75c.
- Modesty T.**—Pearly cream, outer petals cover vermilion rose. \$1.00.
- Mollie S. Crawford, T.**—White, blooms large, of good form, strong grower. 75c.
- Mrs. Aaron Ward, H. T.**—Indian yellow shading to lemon cream. 75c.
- Mrs. A. R. Waddell H. T.**—Long pointed buds of bright rosy scarlet, opening to rich salmon or apricot. 75c.
- Mrs. Alfred Tate**—Coppery red; shaded fawn. 75c.
- Mrs. Chas. Russell, H. T.**—Large rose of American beauty type and fragrance, long pointed buds on long stems. \$1.00.
- Mrs. Frank Bray**—Copper yellow shading to fawn. \$1.50.
- Mrs. David McKee**—Immense blooms on strong thornless canes, fine to form and great substance, color creamy yellow. \$1.00.
- Mrs. Faley Hobbs**—A veritable giant among tea roses, color delicate ivory white delicately pink on edge of petals; deliciously scented. \$1.25.
- Mrs. John Laing, H. P.**—Clear pink, one of the most beautiful pink roses, long buds, of perfect form, on long stems. 75c.
- Mrs. Joseph Welsh**—Bright pink with silver shadings, deeper at base. 75c.
- Mrs Sherman Crawford**—Deep rosy pink. 75c.

- Mrs. Wakefield Christie Miller.—*Blush*. pink, shaded salmon, outside of petals darker, flowers large and well formed. \$1.00. 75c.
- Mrs. Wemyss Quinn.—Intense chrome flushed orange. \$1.00.
- Niles Cochet.—Red cochet, at very strong grower. 75c. .00. 75c.
- Old Gold, H. T.—A reddish orange shading on golden yellow ground. 75c.
- Ophelia, H. T.—Color delicate salmon petals prettily edged with rose center a rich mingling of orange and copper. 75c.
- Ophelia Supreme—Improved Ophelia. Of more intense coloring, strong healthy growth, real rose fragrance. \$1.25.
- Papa Contier T.—Red fading to pink. 50c.
- Perle de Orr—Baby rose yellow in warm glass as Cecil Brunner. 50c.
- Perle Von Godesburg—(Yellow Kaisers). A counterpart of the white Kaisers, color deep to sulphur yellow. 75c.
- President Carnot, H. T.—Delicate rosy blush. 50c.
- Prince Camille de Rohan—Dark velvety red, very double. 75c. .00. 75c.
- Pink Druschki—Of same habit as the white Druschki, color a clear pink that does not fade. \$1.00. 75c.
- Radiance, H. T.—Brilliant rosaceous strong grower good for cut flowers. 75c.
- Wolff's Climbing Rose—Climbing T—Walls, pillars, trees. 75c.
- American Pillar—Bright red cluster. 75c.
- American Beauty—Dark pink. 75c.
- Beauty of Glazenvood—Delicate pink. 75c.
- Belle Siebrecht, H. T.—Clear bright, exuberant blight. 75c.
- Cecil Brunner—Pol. Pink... 75c.
- Caroline Gooderich, H. T.—Dark red. 75c.
- Dr. Van Fleet—Pink. 75c.
- Flower of Fairfield—Red (Dorothy Perkins), w. 75c.
- Glorie de Margotten—Clear red. 75c.
- Gruss und Teplitz—Intense bright Scarlet. \$1.00.
- Hoosier Beauty—Velvet crimson. \$1.50.
- Kaiserin A. Victoria, H. T.—White, same as dwarf variety. 75c.
- Killarney—Pink. 75c.
- Lady Ashdown—Same dwarf variety. 75c.
- Lady Penance—75c.
- Lady Penance—75c.—Lady Penance, same dwarf variety. 75c.
- Lord Penance—75c.
- Liberty, H. T.—Red. 75c.
- Rayon D. Orr—(Golden rays) H. T. A clear, golden yellow, beautiful bronze colored foliage. 75c.
- Red Letter Day—Velvety scarlet crimson; very free bloomer. \$1.00.
- Rhea Reid—Large, bright red, shading to a cerise crimson. 75c.
- Richmond, H. T.—Crimson scarlet, medium size of striking color and fine form. 50c.
- Saffron, H. T.—Copper apricot semi-double, 50c. .00. 75c.
- Sunburst, H. T.—Color a rich chrome yellow, overlaid and shaded orange copper with a metallic sheen. \$1.00.
- Souv De Pierre, Notting—Beautiful long bud; color orange-yellow bordered in carmine red. 75c.
- September Morn.—\$1.50. .00. 75c.
- Tipperary—New Irish rose, bright yellow, long slender, shapely pointed buds. \$1.50.
- Ulrich Brunner, H. P.—Cherry red. 50c.
- W. E. Lippatt, H. T.—Brilliant, velvety carmine. 75c.
- Willowmere—Briar, deep yellow, coral red and shrimp pink. \$1.50.
- Winnie Davis, H. T.—Light pink of very good habit. 75c.
- W. R. Smita—Creamy white with rose shadings, large and elegant. 75c.
- Wm. Sheep—Prest pink, immense shell shape, beautiful form. 75c.
- White La France—Blush white. 50c.
- White Queen—Crisp pink foliage. 75c.
- VARIETIES
- Mad Alfred Carriere—White. 50c.
- Mad C. Testout H. T.—Pink. 75c.
- Papa Contier, T.—Red. 75c.
- Perle Des Jardins, T.—Lemon Yellow. 75c.
- Sunburst—Identical with dwarf Sunburst, a good climber. \$1.50.
- Richmond—Red. 75c.
- Virginia Cox—Dark red, similar to Gruss von Teplitz. \$1.00.
- Crimson Rambler—Red, cluster. 50c.
- Dorothy Perkins—Pink, fine foliage, will not mildew. 50c.
- Dr. Van Fleet—Pink. 75c.
- Gloria de Dijon, T.—Rich amber yellow. 75c. .00. 75c.
- Hiawatha, T.—Single, ruby crimson, large flowers. 50c.
- Marschall Neil, T.—Yellow. \$1.00.
- Philadelphia Rambler—Everblooming red rambler. 75c.
- Pillar of Gold—Yellow. 75c.
- R. M. Henriette, T.—Double, red, large, blooms in large clusters. 75c.
- Penitentiary—Coral pink, fine foliage. 75c.
- Penitentiary—Same as above, larger flowers. 75c.

**Reve D. Orr T.**—(Cli Safrano). Apricot yellow. 75c.  
**Silver Moon**—Pure white, cluster. 75c.  
**Tausendschoen**—Pol. Light pink, shading to deep pink. 75c.

**Wm. Allan Richardson**—Chrome yellow, with orange center. 75c.  
**Wachuriana**—Memorial or evergreen rose. 75c.

### MOSS ROSES

**Glorie of Mosses**—Beautiful blush large. 75c.  
**Crested Moss**—Pink, free from mildew. 75c

**White Bath**—Pure white, very mossy. 75c.  
**Sweet Briar**—75c.

**The Rose**—Is in every garden, they must be treated regularly to keep them in the best condition. Rose Chafer or Rose Bug is one of the worst pests of the Rose. Dry Arsenate of Lead, 2 tablespoonfuls level to each gallon of water should be sprayed over the plants on first appearance of the pest. If 2 tablespoonfuls of sugar is added to the above it will be an advantage.

Mealy Bugs and Leaf Hoppers often infest Roses. For these use Blackleaf 40, 1 teaspoonful to each gallon of water should be used just as soon as the pests appear, several applications should be made at intervals of a few days.

Mildew is very destructive to Roses, particularly on the Ramblers. Rex L. S. S., 1 gill to a gallon of water is a remedy for this disease. Spray the plants freely on the first appearance of the white spots of Mildew on the new leaves and buds. Two or three applications at intervals of a week wil keep the plants bright and clean.

Usually a general treatment for Roses may be given by dusting with the following combination. 2 ozs. of Dusting Sulphur, 2 ozs. of tobacco dust, 1 oz. Dry Arsenate of Lead. The first treatment should be given when the buds are well formed (blossom buds), and should be repeated at intervals of a week will keep the plants bright and clean. Where flowers are grown near houses the above mixture will generally answer all purposes in getting the pest under control.

## Dahlias.

No country grows Dahlias better than the Pacific Northwest. In selecting the list offered here we have tried to avoid such varieties that would give only fair satisfaction. Of the older Show Dahlias we have listed only a few of the best, while of the Cactus, Decorative and Paeony flowered varieties none but those which have great merits have been included. Dahlias should be ordered as soon as possible, so as to make sure that the stock is not sold out. The best time for planting them is May. They do not require a rich soil, but will be thankful for lots of water. When cutting flowers of Dahlias, be sure to cut them as late as possible in the evening and put them in water right away. They will keep very much longer than when picked during the daytime.

### PEONY DAHLIAS

**Gieshas**—Yellow and deep gold tinged with red, long stems; very free flowering.

**Vandyke**—Rosy pink shading to deep pink. Yellow center, large blooms with long stems.

**H. R. Savink**—Large lavender blooms, petals shading to white at center, long stems fine for cutting.

**Red Indian**—Bright crimson velvety blooms with yellow center, very pretty.

**Wodan**—Salmon pink shading to pale yellow at center, back of petal is tinged with lavender; one of our favorites.

**Wonder-Rhyme**—Large pink blooms, shading pale yellow toward center, plants grow to 8 or 9 feet high, very free bloomer.

### DECORATIVE DAHLIAS

**King Lepo**—Large lemon colored flower, with deeper yellow center, very pretty, and free bloomer.

**Sunburst**—Very large blossoms with a coppery color, back of peals lined paler yellow.

**Deliece**—Beautiful pink flowers streaked

with on long straight stems, fine for cutting.

**Gold of Ophir**—Large pale yellow blooms shading to orange at center back of petals, lined with orange, very hardy.

**Manitou**—Immense, large showy blossoms of red and white, streaked petals.

## CACTUS DAHLIAS

**Turingia**—Large copper colored blooms, petals lined with paler yellow, very pretty.

**Madame Mortimer**—Pure white flowers, petal shading toward center to a waxy yellow, fine for cutting, very free bloomer.

**Mrs. McMillan**—Pale pink shading to cream white toward center.

**Madam R. Lovely**—Deep pink petals shading paler pink toward center, fine for cutting, very free bloomer.

**Countess of Lonsdals**—Majenta shaded cactus, very pretty, free bloomer.

## SHOW DAHLIAS

**Florence**—Lemon colored yellow, very pretty.

**Marguerite, Roussen**—Flesh pink with white center, very free bloomer.

**Ansonia**—Deep purple, very free bloomer.

## SINGLE DAHLIAS

**Simplicity**—Pure white with yellow center, resembling a pond lilly, fine for cutting as they have long graceful stems.

## FERTILIZERS

**Ground Lime Rock**—Used for neutralizing soil acidity. 25 to 30 lbs. per sq. rod, or about two ton per acre. Lime is not a direct fertilizer, but improves the condition of swampy and peaty soils. It also makes heavy clays light and porous, and renders the plant food more available. We find that almost all soils in the Puget Sound district is in need of lime. To determine if your soil needs liming, take a small piece of blue litmus paper and insert it in the soil until it gets thoroughly saturated with moisture when it will become a reddish color, showing the acidity of the soil.

The ground lime rock can be applied to the ground with growing crops without injury to them. 5 lbs., 10c; 10 lbs., 15c; 25 lbs., 30c; 50 lbs., 50c; 100 lbs., 85c.

Our High Grade Fertilizer is odorless, unsurpassed for general purposes, this fertilizer is purely organic, no minerals used, is water soluble, and is immediately available as plant food; can be used either dry or dissolved in water. 2 lb. pkg., 25c; 5 lb. pkg., 55c; 10 lb. pkg., \$1.00; 25 lbs., \$2.25; 50 lbs., \$4.40; 100 lbs., \$8.00.

**Potash**—Purely organic. Analysis K. O. 29.29%. 2 lb. 25c; 5 lbs., 55c; 10 lbs., \$1.00; 25 lbs., \$2.25; 50 lbs., \$4.40; 100 lbs., \$8.00.

**Nitrate of Soda**—Quick in action, creating a very rapid growth should be applied only when plants are above the ground. Per lb. 10c; per 200 lbs. sack, \$13.00. Less than sack lots, 8c per pound.

**Blood and Bone**—Per 100 lbs., \$3.75. Special prices on larger quantities.

**Bone Meal**—Per 100 lbs., \$4.00. For larger quantities, special price.

Prices are subject to change without notice.

Delivery costs wil be charged for.

## (New) ALL CROP FARMOGERM

A Combination of Beneficial  
Nitrogen Gathering  
Bacteria for all crops

FRUIT CROPS  
FIELD CROPS

For Use on  
VEGETABLES  
FLOWERS

TRADE **FARMOGERM** MARK

**ALL CROP FARMOGERM** is a new combination of seed and soil bacteria, containing 37 vaireties, the combination being beneficial for all crops, and is the most recent bacteriological product offered by the famous scientist, Dr. G. H. Earp-Thomas, who has successfully segregated the good and useful bacteria and developed the cultures which are offered in a dry vehicle that will keep them active and virile for two years.

Other legume cultures in a dry medium are guaranteed for but six months, and we know of no other culture that is recommended as being directly beneficial to all crops.

**ALL CROP FARMOGERM**—Increases the yield of any crop and enriches the soil; supplies the growing plant and increases the nitrogen in the soil improving the quality of the crop. Aids decomposition of soil particles; hastens decayed organic matter, making plant food more available. Price, 1 acre pkg., \$2.00; 5-acre pkg., \$7.50.

**FARMOGERM**

High bred Nitrogen Gathering  
Bacteria will help you do it.

Inoculate the seeds of all your legumes with FARMOGERM, pure cultures of Nitro-Gathering Bacteria (in the bottle with the glass tube), and double the yield. At the same time you will add Nitrogen to your soil. Specified cultures for each legume—Peas, Beans, Clover, Alfalfa, Peanuts, Vetch, Soy Beans, Cow Peas.

**BIGGER CROPS AND BETTER SOIL****Cost of Farmogerm**

Small Farm Size, 5 acres.....	\$7.50
Trial Farm Size, 1 acre.....	2.00
Garden Size .....	.50
Garden Size .....	.75

**ALL CROP FAROGERM**

1 Acre Size .....	\$2.00
5 Acre Size .....	7.50

**REX LIME SULPHUR SOLUTION**

Manufactured under special process that insures the user a uniform, reliable and efficient spray for San Jose Scale, etc.,

Used in the Yakima and Wenatchee valleys for the last ten or twelve years by the hundred car loads, with universal satisfaction.

**INSECTICIDES, FUNGICIDES AND INSECT POWDERS**

**Arsenate of Lead**—(Dry). Best and most favorable known insecticide for the destruction of all leaf eating insects.

½ lb. 35c; 1 lb. 65c; 5 lbs. \$3.00

**Rex Lime Sulphur Solution**—Is a clear cherry red solution, free from sediment, and tests 32 deg. Baumme, this being as strong as sulphur will stay in solution. Qt., .35c; ½ gal., 50c; gal. 85c; 5 gal., \$2.50; 10 gal., \$4.75; ½ bbl. or 25 gals., \$8.50.

**Blackleaf 40**—The universal spray for all sucking insects. 1 oz. bottle, 25c; ½ lb., \$1.00; 2 lbs., \$3.25; 10 lbs., \$13.75.

**Dusting Sulphur**—Is a highly refined pure sulphur, reduced to an impalpable powder, for dusting purposes. ½ lb., 10c; 1 lb., 15c. Ask for quotations for larger quantities.

**Pulverized Sulphur**—Being the regular commercial article. 3 lbs., 25c.

**Tobacco Dust**—Prepared for dusting Aphis, etc., also for hen's nests. ½ lb., 10c; 1 lb., 15c; 5 lbs. 60c.

**Carco**—Vegetable spray for cabbage maggot, grubs and worms that infest turnips, radishes, beets, rutabagas. Also for crown borers in strawberries. Pt. can, 50c; qts. 75c.

**Grafting Wax**—¼ lb., 15c; ½ lb., 25c; 1 lb., 45c.

**White Hellebore**—Used for leaf eating insects. ¼ lb., 20c; ½ lb., 35c; 1 lb. 60c. Either by dusting or 1 oz. to 2 gallons of water as a spray.

**Catispray**—Used for destroying Caterpillars in the nests. Pt. can, 65c.

**Hammonds Slug Shot**—A well known remedy for nearly all kinds of insects in the garden. 1 lb., 20c; 5 lbs., 75c.

**Paris Green**—For destroying leaf eating insects, ¼ lb., 25c; ½ lb., 40c.

**Tabertonic**—A combination of Paris Green and Bordeaux Mixture in dry form, for potato spraying. 1 lb., 60c; 5 lbs., \$2.50.

**Fungi-Bordeaux**—A convenient eveready concentrated mixture of bordeaux materials. 1 lb., 40c; 5 lbs. \$1.75.

**Lime Sulphur Solution**—Dry. Per lb., 25c; 10 lbs., \$1.75; 25 lbs., \$3.25.

**Phenola**—A combined white cold water paint and disinfectant for use in chicken houses, stables, outhouses, etc. Per lb., 25c.

**Zenoleum**—Non-poisonous, disinfectant and lice killer, animal dip and antiseptic disinfectant. 8 oz., bottle 30c; qt., 75c; ½ gal. \$1.25; gal. \$2.00.

**Carbolineum**—8 oz. bottle, 30c; qt. 75c; ½ gal., \$1.25; gal., \$2.00.

**Bluestone**—(Copper Sulphate). Used for making bordeaux mixture. Per lb., 25c.

# Planet Jr. Garden Tools

It is not possible with the steadily increasing prices of steel, etc., due to war conditions, to list the Planet Jr. Garden Tools with fixed prices. We therefore suggest that you ask for current prices whenever you are in need of any of these tools. The prices mentioned are approximately right, though subject to change.

It need hardly be mentioned that the Planet Jr. tools are the best that can be used and give better satisfaction in the long run than any other tools on the market.

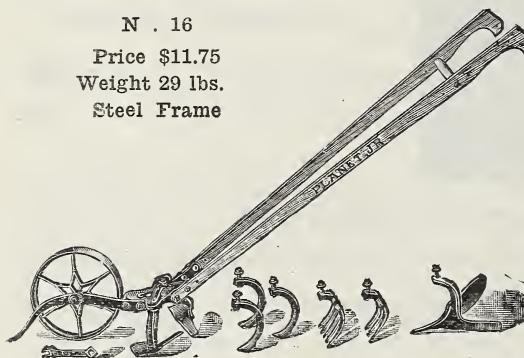
While we list only a few here, we can supply the entire line of the Planet Jr. Tools. Ask for complete descriptive catalog.

N . 16

Price \$11.75

Weight 29 lbs.

Steel Frame

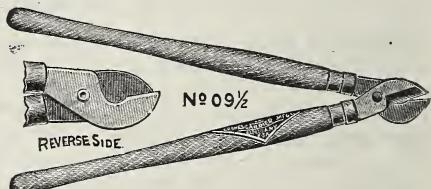


Wood Handle, Pruning Shears, made with notched hook, which gives greater leverage and prevents limb from slipping. Blades made of best tool steel. Price \$1.25; by mail, \$1.35.

## NO. 16 PLANET JR. SINGLE WHEEL HOE, CULTIVATOR, RAKE AND PLOW

We offer these Single Wheel Hoes as the highest type of their class. They have a great variety of tools which adapt the implements to a large variety of work, and there is scarcely any garden culture of which they are not capable. Wheels, frames and handles are alike, but the attachments sold with each vary.

The handles are adjustable in height. The frame is convenient and strong with quick change device by which to exchange the tools without removing the nuts.



## NURSERYMEN'S SUPPLIES

### WOODEN LABLES

#### Tree Lables

Painted Iron Wire—Per 100, 20; per 1000 \$1.75.

Unpainted Iron Wire—Per 100, 20c; per 1000, \$2.00

Painted Copper Wire—Per 100, 35c; per 1000, \$.2.50

Unpainted Copper Wire—Per 100, 25c; per 1000, \$.2.25

### Pot Lables

4-inch Plain Per 100, 20c; per 1000, \$1.00  
Painted, 1000, \$1.25

5-inch Plain, Per 100, 25c; per 1000, \$1.00  
Painted, 1000, \$1.50

6-inch, Plain, Per 100, 25c; per 1000, \$1.50  
Painted, 1000, \$1.85

8-inch, Plain, Per 100, 35c; 1000, \$1.75  
Painted, 1000 \$2.225

Grafting Wax—One pound 25c. Add postage if wanted by mail, 6c postage.

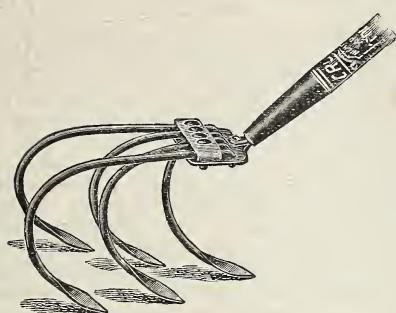
Raffia—Natural color. Market.

Commercial Fertilizers Profitable—A 100-pound bag of high grade fertilizer will contain more soluble and available plant food than 4000 pounds of stable manure of average quality. How much cleaner and easier to handle a 100-pound bag than two tons of manure, and no weed seeds to contend with.

In ordering Bird Cages by mail it would be well to make a second and third choice in case we did not have your first choice. Express or freight.

**CULTIVATOR HOES**

Head made entirely of steel.



No. 111. Three Prong.....	\$0.85
No. 112. Five Prong .....	1.25

**PRICE LIST OF PLANET JR. GOODS**

No. 3 .....	\$19.25
No. 4 .....	20.25
No. 4-D .....	16.25
No. 5 .....	21.75
No. 6 .....	26.75
No. 12 .....	13.25
No. 13 .....	10.00
No. 16 .....	11.25
No. 17 .....	9.75
No. 17½ .....	8.50
No. 18 .....	7.25
No. 19 .....	7.25
No. 28 .....	26.75
No. 36 .....	12.00
No. 90 Planet Jr., 12-tooth harrow, cultivator and pulverizer.....	21.50
No. 82 Planet Jr., 7-tooth horse hoe and cultivator combined.....	20.75

Call or send to us for complete Planet Jr. Catalog. Prices subject to change without notice.

**RITTENHOUSE  
DOUBLE FAN SEEDER**

The two distributing fans revolve in opposite directions, throwing the grain further and more evenly than from any seeder with a single distributing wheel. This means a more even stand of grain and larger yield. Price \$2.50.

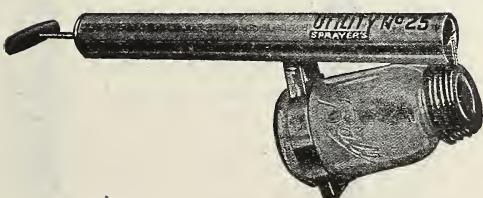
**RITTENHOUSE NO. 3**

The most widely used sack holds one-half bushel, steel frame, convenient hand hold and body shield. Price \$1.50.

**GLASS TANK SPRAYER**

A well-constructed heavy tin sprayer with glass reservoir, which is a Mason jar that is not affected by any kind of spraying material; you can prepare several kinds of spray and change as desired.

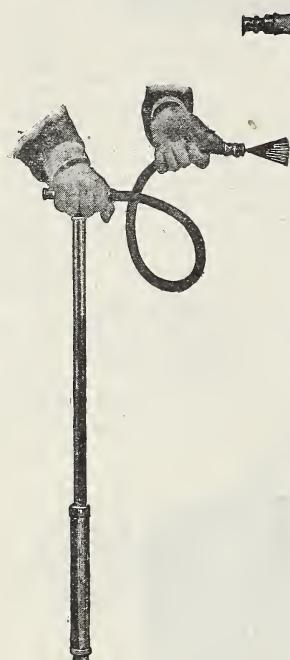
No. 20—One Pint size.....	60c each
No. 25—One Quart size.....	85c each
No. 30—Two Quart size.....	\$1.00 each
No. 30—Three Quart size.....	\$1.10 each

**OUR SPECIAL**

A well constructed fine mist Sprayer, suitable for flowers and poultry. Quart size..... 60c

In ordering Bird Cages by mail it would be well to make a second and third choice in case we did not have your first choice. Express or freight.

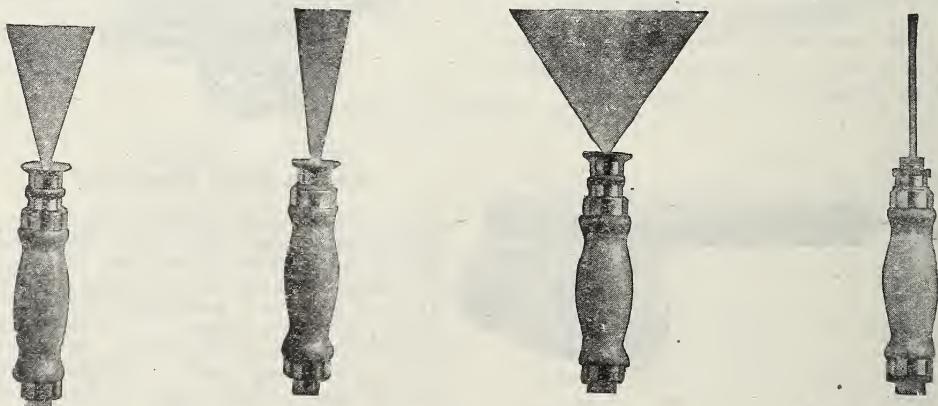
## THE STANDARD SPRAY PUMP



The Standard is the busy man's sprayer. Always ready; saves half the time of doing the work. This is without doubt, the best Spray Pump that has ever been offered to the buying public. It is simple, durable and powerful, and is equally good for field, garden or orchard work. It is made of brass, with two solid brass valves; it is provided with two nozzles,  $3\frac{1}{2}$  feet of hose and strainer. It is warranted unconditionally for five years. No need of unwieldy extension rods, ladders or platforms. It will do the work in one-third the time required by any other sprayer. It will spray a large orchard when used with a barrel. One man will do better work and faster work than two men with an ordinary barrel pump. It will whitewash cow stables and chicken houses, spray cattle dip and disinfectants. Owing to the construction of the Standard Spray Pump, the force is sufficient to cover the highest fruit tree and penetrate the thickest foliage—reaching the vital parts of the tree. Used with a knapsack potato attachment it will spray a field of potatoes, one row at a time, as fast as a man can walk. Everyone who has used this pump or seen it used is an enthusiastic booster for it, and we like to sell it, for it always makes a satisfied customer of the person who buys it. No man with a spot of ground to call his own can afford to be without this pump. The price is so reasonable that it is within the reach of all. Weight, 6 lbs.

The Standard is provided with a set of three nozzles. The cuts below show the different kinds of spray produced by different combinations of these nozzles.

**Junior No 5**—We do away entirely with the objectionable foot rests, clamps, leather suction, packing, etc. Price of Pump complete, as shown in cut, \$3.00...



Nozzles for Junior No. 5. Warranted for five years

The Standard, with $3\frac{1}{2}$ feet of hose, full set nozzles and extension rod.....	\$6.00-
Knapsack attachment.....	\$3.75. Extra hose, per foot.....

**A 100-lb. BAG OF HIGH GRADE COMMERCIAL FERTILIZER**—Will contain more soluble and available food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than two tons of manure, and no weed seeds to worry over.

## GARDEN HOSE

25 ft. length Cotton Hose, \$4.00; 50 ft. length Cotton Hose, \$7.50.

**Black Snake Garden Hose**—Is a corrugated moulded rubber hose; is strictly first grade, made principally to meet the demand of a good garden hose; in 50 foot lengths only. Price 25 ft. lengths, \$5.25; 50 ft. length, \$10.00.

**Standard**—This is a five-ply guaranteed Rubber Hose, regular construction; made of good material all the way through. Is a splendid value at our price. Can furnish in 50-foot lengths only. Price 25-ft. lengths, \$4.75; 50-ft. lengths, \$9.00.

**Five-Ply Red Rubber Spray Tubing**—One-half inch 5-ply Red Rubber Tubing with extra Rubber Core to withstand the ac-

tion of chemicals. Can furnish in lengths to suit. Price,  $\frac{1}{2}$ -inch 20c per foot.

**Extension Rods**—Brass for Nos. 25 and 26, or any pump that takes a Bordeaux or Vermorel Nozzel, 2 feet. Price 75c each.

**Extension Rods—Brass Rods**—Brass for Nos. 18, 21, 21 Pumps; 3 feet. Price 60c each.

**Bordeaux Nozzels**—\$1.00 each.

**Spray Hose (without Couplings.)**—Price 15c per foot.

**Scollay's Plant Sprayer**—\$1.00.

## POULTRY FOODS AND REMEDIES

Only too often fowls are liable to get sick, and in many cases it is the quick admonition of the right remedy which either saves the sick birds or at least prevents the rest of the flock from catching the same disease.

We are now listing the best remedies for the various ailments among poultry; also lice destroyers and egg producers.

Conkey's, Pratt's and Dr. Hess's are considered the leading remedies. Prices subject to market changes.

**Ellen's New Discovery**—A perfect non-poisonous healing powder, protected under the Pure Food and Drug Act. A sure cure for old standing sores, ulcers, scratches, collar and saddle galls, and all sores of man or beast. Small cans, 25c each; large cans, 50c each.

**Rex Liniment**—For sprains, bruises, swellings, burns, mange, etc.; a valuable liniment for man or beast. 50c and \$1.00 bottles. Express only, cannot be mailed.

**Pratt's White Diarrhoea Remedy**. The cure that also prevents.....30c

**Pratt's Chicken Cholera Remedy**.....30c

**Pratt's Head Lice Ointment**.....15c

**Pratt's Bronchitis Remedy**.....30c

**Pratt's Sore-Head Chicken Pox Remedy** 30c

**Lee's Germozone**—For poultry. The cure that cures. Its action is marvelous. Never fails to cure bowel complaint, cholera, roup, colds etc. Whatever malady threatens, Germozone will cure or prevent. Don't be without it. Liquid, 50c and 75c.

**Pratt's Poultry Regulator**—Makes hens lay. 30c and 60c packages.

**Pratt's Powdered Lice Killer**. Put it on the birds and in nests. Sifter top boxes .....30c

**Rex Conditioner**—Guaranteed to expel worms and the foreign mucus that breeds the worms; will keep the animal's whole system in perfect condition. 25c pkg., five for \$1.00.

**Rex Colic Cure**—For spasmodic and flatulent colic. The peculiar nature of colic demands immediate treatment, therefore every stock owner should have a positive cure for immediate use. \$1.00 size bottle for 75c. Express only; cannot be mailed.

**Pratt's Poultry Disinfectant and Liquid Lice Kiler**. Spray everywhere.....75c

**Pratt's Roup Remedy**. Tablets or powder. Cures and prevents. Never be without it .....30c

**Laying Tonic**—A complete ground food to be fed dry or wet, starts hens laying and keeps them at it. Hastens moulting. Puts poultry in prime condition. A rich, wholesome, nourishing food for growing fowls and hens. Encouraging rapid growth and increasing egg production; can be fed dry or in a mash.  $1\frac{1}{2}$  lbs., 30c;  $3\frac{1}{4}$  lbs., 60c; 7 lbs., \$1.20;  $12\frac{1}{2}$  lbs., \$1.75; 25 lbs., \$3.25.

**Zenoleum**—A disinfectant sheep dip insecticide and lice killer. Zenoleum is much stronger and much safer than carbolic acid; endorsed by the leading agricultural stations in the United States. Small cans, 35c; quarts, 75c.

## POULTRY SUPPLIES

**Alfalfa Meal**—The best substitute for green food for winter feeding. Per lb., 5c; 8 lbs., 25c; 100 lbs., \$2.40.

**Albers Calf Meal**—In 25 lb. sacks, \$1.75.

**Blatchfords Calf Meal**—In 25 lbs. sacks, \$1.75.

**Blood Meal**—The most highly concentrated egg producer on the market. To be fed in soft food. Unexcelled for forcing growth of young chicks, or as an egg producer. Per lb. 10c; 3 lbs., 25c.

**Charcoal**—Our charcoal is prepared for chickens, it is granulated and is free from dust. A good thing for bowel trouble, sour crop and indigestion; a health preserver, two sizes Chick and Hen. Per lb., 10c; 3 lbs., 25c.

**Beef Scraps**—These are the very best that the market affords, to keep hens laying all the winter. Fed three times a week using about a handful to each three chicks in a hot morning mash. Lb., 10c; 3 lbs., 25c.

**Granulated Bone**—Our granulated bone is made from hard white, raw bones, and is of a superior quality; an indispensable food for laying hens. Per lb., 6c.

**Granulated Shell**—By analysis almost the same as the shell of the egg. Per lb., 2c.

**Grit**—Every poultry raiser should keep a supply of grit in his feeding pens. All fowls must have a supply of good sharp grit to grind their food at all times. Made in two sizes. Per lb., 2c.

**Laying Mash**—A mixture of sound, sweet nutritious grains in ground form to which is added a liberal supply of blood meal and Alfalfa meal. 5½ lbs., 25c.

**Protiena**—Is 46% protein, and 10% fat and is a rich nutritious food of superior value as an egg producer. It is relished by young and old fowls, and all farm animals.

**Poultry Pepper**—Our Mexican chili pepper is a necessity for laying hens during the moulting season. One tablespoonful in a mash to 12 to 14 fowls. Per lb. 25c.

**Scratch Food**—Our brand of scratch is a combination of a variety of grains, forming a well balanced ration for the laying hens and growing fowls. Market.

**Chick Food**—Is composed of a variety of grains cut to the proper size for baby chicks. Containing the proper elements for success with your baby chicks. Lb., 10c; 4 lbs., 25c.

**Developing Food**—Should be used after the fourth or fifth week to insure the proper growth of bone and muscle in the growing chick. Lb., 10c; 4 lbs., 25c.

**Oil Cake Meal**—A high concentrated food fed in connection with other foods is of great value, using 4 to 16 ozs. for hogs according to size. For cattle and horses use from 8 to 16 ozs. according to size and should always be mixed with other food. 5 lbs., 25c.

**Pigeon Food**—A balanced ration for pigeons. 3 lbs. 25c.

**Blatchford's Calf Meal**—Per 25-lb. sack, \$1.75.

**Blatchford's Milk Mash**—For growing chicks. Per 25-lb. sack, \$1.75.

**Pratts Poultry Regulator**—26 ozs. 30c; 4 lbs., 60c; 12 lb. pail, \$1.75; 25-lb. pail, \$3.00.

**Heave Powder**—50 and \$1.00 per pkg.

**Lice Powder**—30c and 60c per pkg.

**Liquid Lice Killer**—Per can 50c; 90c; \$1.50

**Kow Kure**—Per pkg., 55c and \$1.10.

**Conkey's Fly Knocker**—Qt., 60c; ½ gal., \$1.00; gal., \$1.75.

**Lice Liquid**—Qt. 60c; ½ gal. \$1.25.

**Moes Never Fail Trap Nests**—\$1.00 and \$1.25.

**Moes Round Baby Chick Feeder**—Ea., 25c.

**Pillings Caponizing Set**—\$3.00.

**Germozone**—For better health and better chicks.

**Humpty Dumpty Egg Case**—Holds 12 doz. eggs, 75c.

**Ideal Paper Egg Boxes**—Doz., 15c.

**China Nest Eggs**—3 for 10c; per doz., 30c.

**Sanitary Grit and Shell Box**—3 compartment, \$1.35.

**Poultry Bands**—Key ring celluloid, per doz., 15c.

**Poultry Leg Bonds**—Leader, per doz. 20c.

**Poultry Leg Bands**—Smith's sealed, 20c.

**Pettys Poultry Punch**—Each, 25c.

**Black Head Remedy**..... 60c

**Bronchitis Remedy**..... 60c

**Cholera Remedy**, 30c..... 60c

**Chicken Fox Remedy**..... 60c

**Canker Special**..... 60c

**Gape Remedy**..... 60c

**Head Lice Ointment**, 15c..... 30c

**Oculum for Chickens**, 50c..... \$1.00

**Insect Powder Blowers**..... 15c

**Andrews Obaco** ..... 50c

**Dr. Hess' Panacea**, 30c..... 60c

**Dr. Hess' Louse Killer**..... 30c

**Dr. Hess' Roup Remedy**..... 30c

**Poultry Regulator**..... \$1.20

**Poultry Panacea**, 30c..... 60c

**Roup Remedy**, 30c..... 60c

**Roup Pills**, 30c..... 60c

**Poultry Laxative**..... 60c

**Scaly Leg Remedy**, 30c..... 60c

**Colic Cure**, 50c..... \$1.00

**Rex Conditioner**..... 25c

**Licene for Lice**..... 60c

## SODIUM SILICATE (Water Glass)

**Storing Eggs for Winter Use**—Pack in stoneware jars during the summer season, using fresh clean eggs, do not use those that float, when they are slightly soiled remove such stains with a cloth dampeden with vinegar. Do not pack dirty eggs under any circumstances.

**Water Glass Method:** 1 qt. Sodium Silicate (water glass) to 9 qts of water that has been boiled and cooled, place mixture in a 5 gallon crock or jar, this is sufficient for 15 dozen eggs. Jars should be thoroughly cleansed and scalded; allow 2 inches of the solution to cover the eggs, then place in a cool dry place. Jar should be well covered to prevent evaporation, waxen paper covering tied around the top will answer. The solution should not be used the second time.

Preserved eggs can be used for all purposes for table and cooking, when boiling preserved eggs a small hole should be made in the shell with a pin at the large end before placing them in the water to allow air in the eggs to escape when heated to prevent cracking. Fresh eggs when properly preserved will keep from 8 to 12 months.

½ gal., \$1.25; gal., \$2.00.

## INCUBATORS

The St. Helens Incubator is shipped to you on trial and you can make two or three free hatches, and if not perfectly satisfied with it you can return it and the manufacturer will refund your money and pay the return charges on the incubator. It is simple to operate, having a large oil tank that will hold enough oil to run the entire hatch, having a double heat regulator, and copper hot water heating system and heavy three walled construction, which makes of it one of the finest incubators on the market today.

### ST HELENS INCUBATOR FOR 1920.

60 Egg Special St Helens, ft. pd.,	\$12.00	160 Egg Standard St Helens, ft. pd.	\$26.00
100 Egg Standard St Helens, ft. pd.,	\$21.00	320 Egg Standard St Helens, ft. pd.,	\$36.00
		480 Egg Standard St Helens, ft. pd.,	\$57.00

All hot water heated copper tank incubators.

Orders for St. Helens Incubators and Brooders when shipped from factory will be F. O. B. Your nearest R. R. Station.

### THE ST HELENS BROODERS.

60 Chick indoor Brooder, freight paid,	\$ 6.50
60 Chick outdoor Brooder, freight paid, metal top and floor,	\$ 7.50
100 Chick Electric Hover and expandible yard, freight paid,	\$ 5.60
120 Chick indoor Brooder, freight paid,	\$10.00
120 Cheik outdoor Brooder, freight paid, metal top and floor,	\$11.50
160 Chick Brooder, freight paid,	\$11.00
240 Chick outdoor Brooder, freight paid, metal top and floor,	\$18.00
300 Chick outdoor Brooder, freight paid,	\$15.00
1000 Chick Oil Burning Brooder Stove, freight paid,	\$32.00

Latest improved blue flame, oil burning brooder stove converts common coal oil into gas. No noise or odor. Oil storage tank on outside of building. Fitted with heat regulator and 52 inch round metal canopy. Heat regulated perfectly day or night. Operates at low expense. Stove and complete plans for Brooder house and brooder instructions furnished with each stove.

### WINFORDS ELECTRIC BROODERS

Time, trouble and expense are eliminated when use is made of an electric brooder.

The Winford is simple but efficient if you are so situated that you can use electric current, it will give a satisfaction never before known in the brooding of chicks.

- No. 1, Brooder capacity 75 chicks, shipping weight 10 pounds, Price \$ 6.50
- No. 2 Brooder capacity 150 chicks, shipping weight 15 pounds, Price \$ 9.00
- No. 3 Brooder capacity 300 chicks, shipping weight 25 pounds, Price \$13.00
- No 4 Brooder capacity 500 chicks, shipping weight 30 pounds, Price \$17.00

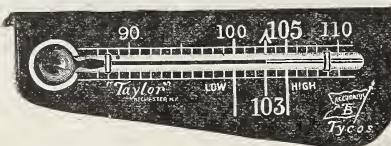
No. 1 and No. 2 can be sent by Parcel Post

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**Crown Gall**—A certain per cent of trees affected with Crown Gall may recover if the Gall is chiseled out thoroughly and painted with Bordeaux Mixture, if the Gall is not too far advanced.

## INCUBATOR SUPPLIES

Dairy Thermometers. Price 35c.  
**Hot Bed Thermometer.** Brass point, for ascertaining the degree of heat in the hot beds. Price \$2.50.  
**Brooder.** No. 771—Has magnifying lens front making reading much easier. Price 75c.



**Hot Bed Thermometer**  
**Incubator Thermometers,** No. 756—Has round corners, tube set an an angle; length 4 inces.. Price 75c.

**Incubator Hygrometer**—Shows the amount of moisture in the eggs, lessens the percentage of chicks dying in the shell, due to improper moisture conditions. Full directions sent with each Hygrometer. Price \$1.50.

**Incubator No. 755**—Same as No. 756, except that it is certified correct; worth the additional cost. Price \$1.50.

**House Thermometers**—Fine Japan, just the thing for house use. 50c.

MARVEL COLONY BROODER  
FOR EXPERT OR NOVICE

The Marvel Colony Brooder offers such a great many advantages over other makes that it has become THE brooder for many successful chicken raisers. Our space in this catalogue is limited and we therefore will only give a short review of what the "Marvel" is and what it can do. We want you to become sufficiently interested to ask us for our pamphlet, which tells you in detail what you will be able to accomplish with our "Marvel"

**Capacity**—Will successfully brood 50 or a large flock of 1,000 chicks.

**The Heater**—Heavy iron castings, 27 inches high. Fire pot contains enough coal to keep fire going through the night in the coldest weather.

Anti-clinker plate, both shaking and dumping.

**Regulation**—Automatic.

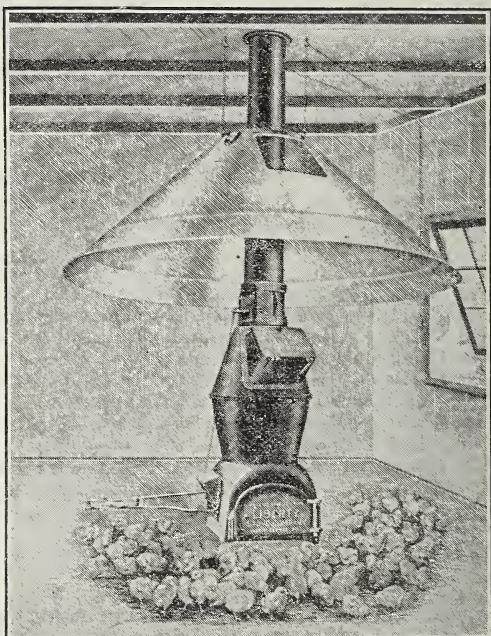
**Control**—This is of the utmost importance, as the life of the chicks depends on the controlling of the heat. The superautomatic check control with which the "Marvel" Brooder is supplied is patented by the makers, and one of the strongest features of the brooder. You will save many chicks by using the "Marvel" and its great improvements.

**The Pouch Feed**—Notice the ease with which coal is administrated through the Pouch Feed.

**Adjustable Hover**—The Hover, made of heavy galvanized iron, can be easily raised to any desired height, making the cleansing of the fire a very easy matter.

**Fuel**—Use Chestnut or chestnut mixed with pea coal. Some obtain best results with pea coal alone, though only during mild weather.

**Safety**—There is no danger from fire, as this is all confined within the iron castings. It is based on the fresh air principle. Fresh warm air will keep your chicken alive and healthy; foul air and sweating will cause them to die. Use the "Marvel" and you will see every chick in the hatch develop into a profit-yielding bird.



Price Outfit No. 20, 52-in. Hover, \$21.50 F. O. B. Seattle

## DRIKING FOUNTAINS AND FOOD HOPPERS

### MOE'S STAR JAR FOUNTAIN

The most efficient fountain or feeder ever invented. Will fit pint, quart or one-half gallon mason jar. Made out of one piece of non-rusting metal. Little chicks cannot get drowned. Convenient, cheap and sanitary. Can be used for feed as well as water. We sell more of this kind than of any other and are discarding all other makes. Price, each without jar 15c; by mail, 5c extra.

#### FOOD HOPPER, \$1.00, \$1.25

Economical for feeding Beef Scraps, Charcoal and Bone.

#### MOE'S ROUND BABY CHICK FEEDER

A great food saver, as chicks cannot get into it and contaminate the seed. Cannot be upset. Will last for years. Price each 25c; by mail, 30c.

#### HUMPTY DUMPTY EGG CARRIER

This is the cheapest on the market; collapsible, takes up little room when not actually in use. 144-egg size, 75c each.

Wall Founts—May be hung up at a convenient height for the poultry.	\$1.25.
Moe's Never Fail Trap Nests.....	\$1.00

## OUR BIRD PAGE

The Birds are shipped by express at risk and expense of buyer. The Express Company is responsible for the safe transportation, so that in case the bird does not seem to be in first-class condition on its arrival it should be refused.

Our Birds will give thorough satisfaction, as no birds will be sent out unless they are thoroughly tested singers.

When ordering a Canary tell us if you want a pure yellow, a dark or a yellow bird with dark markings. Our prices range from \$7.00 to \$15.00, the lower priced birds as a rule being dark colored ones, although occasionally we can supply an exceptionally good dark singer at a more advanced price.

For females our price is \$1.50 for dark colored and \$2.00 and up for yellow birds.

If you want a Canary in your home, let us know. Send us the price you wish to pay out and we will see to it that you are absolutely satisfied. No birds sent C. O. D.

#### CANARY BIRDS.

The companionship of a bird has lightened the life of many a tired, overworked mother, on whom the daily cares and burdens of life have rested heavily.

The music of a good songster makes the whole house more cheerful, and every member of the family enjoys the pure clear notes of the happy little songster.

These beautiful pets are the favorite song birds of today; no home is complete without one of them in its dainty cage, their wonderful vocal powers make them very desirable pets, and we find that it is both instructive and interesting to raise them.

The superior quality of our selected Canaries will please the most critical, of which we keep a large stock to choose from; also Linnets, Parrots, Paroquets, Finches, Japanese Robins, Black Hood Nuns, etc., etc.

#### BIRD SEED AND OTHER NECESSITIES

**Bird Bitters**—A specific for the restoration of song, and an unfailing remedy for nearly all the diseases of cage birds. Price 25c.

**Birdoline**—Will improve the bird's voice; a relief for loss of song, hoarseness, asthma, shedding of feathers out of season; also a preventative against most diseases common to canaries and seed-eating birds. Price 15c.

**Bird Mana**—Keeps cage birds in constant song; improves the plumage and prevents disease. A sure cure for the loss of song, and nearly all diseases of cage birds. Price 15c.

**Hennings Tonic**—For the prevention and cure of all diseases which cage birds are subject to: colds asthma, hard breathing, shedding of feathers out of season, diarrhoea, etc. Price 15c and 25c

**Song Restorer**—(Spratt's) Specially prepared for birds who have lost their voice from the effects of colds, or excessive moult; for breeding birds and their young; and for old it is invaluable, strengthening the voice and improving the plumage. Price 25c.

**Spratt's Color Food**—Color food for canaries for natural red plumage; specially prepared. Price 25c.

## BIRD SEED AND OTHER NECESSITIES—Continued

**Song Restorer (Dahotas)**—A special treat for canaries and other song birds; this song restorer is of the highest advantage to seed-eating song birds that are moulting, and also to those that have lost their voice on account of colds, drafts, etc.. Price 15c.

**Plumage Restorer**—For restoring the plumage of parrots, canaries, and other cage birds. Price 25c.

**Moulting Pepper**—For changing the plumage of canaries from yellow to red. Price, 25c.

**Cod Liver Oil**—Cage bird food—is an invigorating and healthy preserving diet for canaries, etc. A substitute for egg food, being less expensive and more easily prepared. It is a valuable tonic, a flesh and bone maker, keeping birds in perfect health. Price 20c.

**Nestling Food**—A substitute for hard boiled egg and cracker, fed to young canaries. Price 25c.

**American Salve**—Is used for the loss of plumage, sores, abrasions, and wounds of domestic animals, such as canaries and other pet birds, dogs, cats, horses, cows, etc. Price 25c.

**Bird Eye Water**—A specific for the cure of sore eyes, and inflammation of the eye lids of all kinds of cage birds, and other domestic pets. Price 25c.

**Kaempers Bird Liniment**—A prompt and efficient remedy for all diseases of the feet. Price 25c.

**Parrot Tablets**—To keep parrots from picking out their feathers, and for maintaining parrots in good general condition. Price 25c.

**Kaempers Parrot Tablets**—For diarrhoea, bloody flux, or any deranged condition of the bowels. Price 25c.

**Phenolated Brassica Oil**—For mites, parasites, etc., 25c.

**Mite Powder**—For mites, lice, parasites, etc. Price 25c.

**Kaufmann's Special Mixture Bird Seed**—Put up from specially re-cleaned seeds; bright, clean, pure and wholesome, from one of the best formulas; without any hemp in it. Price 20c.

**Kaufmann's Hemp Mixture**—Has a small amount of hemp in it for those who wish to feed some hemp; put up with the same care as Kaufman's Special Mixture. Price 20c.

Books on Canary Breeding and Training, by Chas. N. Page, describes and tells the whole story of the necessary care of the canary as a songster; 80 pp. 25c each.

Feathered Pets, by Chas. N. Page, describes and tells how to care for birds that can be successfully kept in captivity. 144 pp. 25c each.

Parrot Book describes different kinds, tells how to treat them when sick, how to train and care for young parrots. Paper, 25c.

## USUAL DISTANCE FOR PLANTING

Asparagus, 3 to 4 by 2 feet.

Beans, Bush, drills, 2 to 3 feet apart.

Beans, Pole, 3 to 4 feet each way.

Beets, Early, drills 12 to 18 inches apart.

Beets, Late, drills 2 to 3 feet apart.

Blackberries, erect growing 6 to 9 by 4 feet.

Blackberries, Mammoth and Himalaya, 8 by 24 feet.

Cabbage, Early, 16 by 30 inches.

Cabbage, Late, 24 by 30 inches.

Carrots, drills 1 to 2 feet apart.

Cauliflower, 2 by 2 to 2 by 3 feet.

Celery, rows, 3 to 4 feet, 6 inches in row.

Corn, Sweet, 3 to 3½ feet by 9 to 24 ins.

Cucumber, 4 to 5 feet each way.

Currants, 5 by 3 feet.

Egg Plant, 3 by 3 feet.

Lettuce, drills 18 inches apart.

Melon, Musk, 5 to 6 feet each way.

Melon, Water, 7 to 8 feet each way.

Gooseberries, 5 by 3 feet.

Grapes, 8 to 10 by 12 feet.

Onions, drills 14 to 20 inches apart.

Parsnips, drills 18 to 36 inches apart.

Peas, drills 2 to 3 feet apart.

Pepper, 15 to 18 inches by 2 to 2½ feet.

Potatoes, 12 to 18 inches by 2½ to 3 feet.

Pumpkin, 8 to 10 feet each way.

Radish, drills 10 to 18 inches apart.

Raspberries, 6 to 8 by 3 feet.

Rhubarb, 2 to 4 feet by 4 feet.

Salsafy, drills 18 to 24 inches apart.

Spinach, drills 12 to 18 inches apart.

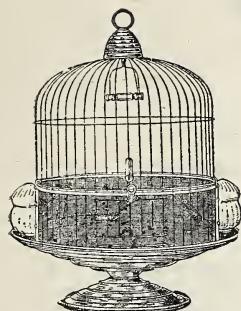
Squash, Bush, 3 to 4 feet by 4 feet.

Squash, Running, 12 feet each way.

Tomato, 4 feet by 4 to 5 feet.

**The World's Greatest Cow Medicine**—This is different from anything ever discovered for cow troubles. It is the only medicine that is strictly for cows only. It is not a stock food, but a specific remedy, especially for cow diseases. **Kow Kure**, 55c; postpaid, 65c. **Kow Kure**, \$1.20; postpaid, \$1.25.

## BIRD CAGES

**ROUND BRASS CAGE—Brass Guard**

2525—10½ in. diameter.....	\$6.25
2526—11 in. diameter.....	7.25
2527—11¾ in. diameter.....	7.75

**Plain White**

Square—	Plain
30—8¾ x 5¾ .....	\$2.30
31—9¼ x 5¾ .....	2.50
32—9¾ x 6¾ .....	2.60
33—10½ x 7½ .....	2.80
34—11⅓ x 8⅓ .....	3.00
35—11¾ x 8¾ .....	3.25

**Brass—Guard**

Square—	
548—.....	\$5.00
549—10⅓ x 7⅓ .....	\$5.50
550—10¾ x 7¾ .....	6.00
551—11¾ x 8¼ .....	6.50
552—11¾ x 8¾ .....	7.00

**Round Ivory Pedestal Base—Brass Guard and Knob**

8888-W—10 in. diameter.....	\$4.50
8888-C—10½ in. diameter.....	5.50
8888-D—11 in. diameter.....	6.50
8888-C— in. diameter.....	6.00

**Round Brass Beehive Cage  
Pedestal Base**

8888-W—10 in. diameter.....	\$6.25
8888-S—10¾ in. diameter.....	7.25
8888-L—11 in. diameter.....	7.75

**Cozy Corner, Brass—Oxidized Trimmed**

1111—8¾ x 8¾ .....	\$14.00
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**Cozy Corner, Brass—With chain**

1111-B—8¾ x 8¾ .....	\$15.00
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Cozy Corner—White.....	\$13.50
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**Bath House—Brass, Drawer Base**

7777—9½ in. diameter .....	\$13.50
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**Breeding Cages**

No. 17 with partition.....	\$4.75
No. 18 with partition.....	5.25
No. 19¼ with partition.....	5.75
No. 42 with partition.....	6.50

We have many kinds of bird cages not enumerated here, such as Wicker Cages and Stands Round and Cottage shape in wicker work. Parrot Stands, Traveling Cages, etc.

## GOLD FISH AND ACCESSORIES

**Gold Fish**—Did you ever own a globe of Gold fish; you admire them no doubt, for their pretty form, exquisite coloring, and graceful movements, but if you have never kept fish, you cannot realize how your interest grows as you become more familiar with them.

They require very little attention; they should have plenty of pure fresh water (good drinking water). When they continually come to the surface, making bubbles, it indicates that they need fresh water. And also when the water becomes milky looking, it needs to be changed. We keep a small amount of salt in the tank, and fed a small amount of feed each day. The best way that we know of to regulate the feeding is by watching the excrement; when it becomes whitish lessen the quantity of food, as

when conditions are normal the excrement should be dark.

We have at all times a full stock of Gold Fish, varying in price from 25c up, according to size and age of fish.

We keep an assortment of glass fish globes varying in price from 50c, 85c, \$1.75 to \$2.75 each.

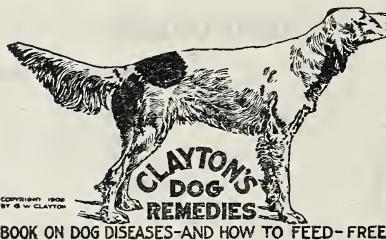
**Improved Wafer Fish Food** — A highly nutritious preparation which is readily eaten by Gold Fish. 10c and 15c per box

**White Sand or Gravel**—Absolutely clean, is very beneficial for aquarium, bird cages, etc., 5c per pound.

**Fish Nets**—For handling Gold Fish without danger of injury to them. Medium size, 25c each.

**Roller Mixture**—Put up with the same general care that Special and Hemp mixtures are. Per lb. 25c.

All remedies have to pay a government tax of 1c for each 25c or fraction thereof. This applies to all remedies for Birds, Poultry Dogs and Cats, etc. This 1c for each 25c or fraction thereof must be added to the purchase price of remedy.



Complete Treatise on these by Doctor Clayton free at our store.

We either buy dogs outright, or sell them on Commission basis. Commission for selling ranges from one-third up according to the length of time we have to hold and care for the animals. We care for them while in our posession free of charge. We are, however, not liable for sickness, death or loss of any kind. Should the dog become sick the same will be returned or be cared for by a veterinary at owners expense. No dog to be kept longer than one week at any time. Should there be anything in the line of Dogs or Cats you wish, we will be pleased to enter your name on our lists and advise you when we get the kind you wish in stock.

The Dog is undoubtedly man's only unselfish friend, and stands staunchly by its master through all the vicissitudes of life, guarding his property and also his life with all his instinct and devotion. And not infrequently gives up his life in defence of his master. He then deserves our consideration and protection when disease of any kind attacks him.

**Claytons Kill Flea Dog Soap**—Death to fleas, keeps the skin clean and healthy, improves the coat, will not injure the dog in any manner, contains no mercury or carbolic acid, and yet kills the fleas. Price 25c.

**Claytons Shampoo**—For washing dogs, is without question the most beautiful preparation for washing dogs on the market as its lather cleanses the skin and should be used to destroy that doggie odor so objectionable to dogs kept in the house. Price 25c.

**Claytons Cream Dog Soap**—Can be used on the most delicate skin with perfect safety. Price 25c.

**Claytons Ceoline Dog Soap**—For fleas, lice and many kinds of ticks.

**Claytons Ceoline Wash**—Is death to fleas, lice, and many kinds of ticks, an excellent disinfectant, deodorizer and germicide. Price, 25c.

**Claytons Kill Flea Powder**—To rid cats, dogs, birds and many other domestic animals of fleas and lice some ticks, and other vermin on beds and bedding, and in kennels etc. Price 25c.

**Claytons Mange Remedy**—For many kinds of skin disease, ordinary mange, eczema, and extensively used for the human scalp. Price 50c.

**Claytons Canker Lotion**—For disease of the ear, a reliable remedy for internal and external cankers, deafness etc. Price 25c.

**Claytons Puppy Tonic**—Is an excellent remedy for puppies, to make them thrive and grow strong and healthy. Price 50c.

**Claytons Distemperine**—Dogs do not necessarily have to have distemper any more than people have to have the measles, but when they do contract the disease they should be treated scientifically. Price 50c.

**Claytons Distemperine Tablets**—For distemper, coughs and colds. Price 50c.

**Claytons Eye Lotion**—For diseases of the eye. Price 50c.

**Claytons Fit Remedy**—A reliable remedy for all kinds of fits, in grown dogs and puppies. Price 50c.

**Claytons Cough Remedy**—For coughs, colds soreness of the throat and air passages. Price 50c.

**Claytons Hair Tonic**—A valuable remedy for the preservation, beauty growth and the restoration of the hair. Price 50c.

**Claytons Laxative Pills**—Are to regulate the liver and will be found very effective in cases of dropsy, jaundice and chronic constipation; very common in house pets. Price 50c.

**Claytons Blood Pills**—For all blood diseases, these pills will be found particularly beneficial and a very reliable remedy for all impure conditions of the blood caused by overheating, mange, surfeit, erythema, abscess, and ulcerations.. Price 50c.

**Claytons Vermifuge**—For worms in dogs of all ages, and can be given to puppies when they are ten days old. Price 50c.

**Claytons Sulphur Tablets**—Are a combination of sulphur and other remedies that scientific research has proven thoroughly compatible. Price 50c.

## DOG REMEDIES—Continued

**Claytons Condition Pills**—With pepsin, these pills will be found an excellent remedy for all debilitated conditions of the system. Price 50c.

**Claytons Diarrhoea Remedy** — A reliable remedy for acute and chronic diarrhoea. Price 50c.

**Claytons Rheumatic Tablets**—For all forms of rheumatism. Price 50c.

**Claytons Digestive Tablets**—For all forms of indigestion. Price 50c.

**Claytons Chorea Tablets**—For all cases of chorea. Price 50c.

**Claytons Tape Worm Expeller**—For tape worms. Price 50c.

**Claytons Pills**—For intestinal parasites. Price 50c.

## SPRATT'S DOG AND CAT FOOD

## Full Directions and Instructions on Each Package.

Your dog is your best friend and is entitled to kind treatment and good care. For the ailments to which they are subject you will find nothing better than the following:

**Spratt Fibo**—Is daily gaining in popularity as a food for puppies, growing dogs, for dogs recovering from sickness and disease, for shy and dainty feeders, for bitches rearing puppies, or as a change of food at any time for all dogs. Per pkg. 40c.

**Spratt's Pat Dog Soap**—Non-poisonous, the only soap that ever should be used in preparing dogs for exhibition, as it leaves the coat smooth and glossy, this soap is strongly recommended for nursery and toilet use, it clears away seurf and dandruff and beautifies the hair; it is a tonic. Per cake, 25c.

**Spratt's Dog Biscuit**—This is scientifically prepared food that is taken readily by all breeds of dogs. It is composed of meat, wheat and vegetables, and is a well-balanced ration. Per lb., 15c.

**Catnip Mouse**—The object is to furnish amusement to and benefit the health of cats. In endeavoring to get the catnip it induces them to exercise; if the cat plays with it violently, it is saying as plainly as it can that it wants catnip. If you value your cats health, give it to them at times. Price 10c.

**Cat Food**—A staple food for long or short haired breeds. Kittens as soon as they are ready to leave their mothers should feed on it. Lb., 15c; box, 40c.

**SPRATTS PATENT PUPPY CAKES**—For puppies of all breeds, toys or small dogs that get very little exercise. Per box, 40c.

**SPRATTS FIBO**—Is daily gaining in popularity as a food for puppies, growing dogs, for dogs recovering from sickness and disease, for shy or dainty feeders, for bitches rearing puppies, or as a change of food at any time for dogs. Per box 40c.

## Reference Table

## WEIGHTS OF VARIOUS ARTICLES

Artichokes	60 lbs.
Barley	48 lbs.
Beans	60 lbs.
Buckwheat	48 lbs.
Blue Grass— Kentucky	14 lbs.
English	24 lbs.
Canary Seed	60 lbs.
Cheat	34 lbs.
Clover Seed	60 lbs.
Corn, Shelled	56 lbs.
Charcoal	22 lbs.
Emmer	40 lbs.
Flax Seed	56 lbs.
Grass Seeds (unless otherwise stated)	14 lbs.
Hemp Seed	44lbs.

Lawn Grass	20 lbs.
Meadow Fescue	24 lbs.
Millet	50 lbs.
Oats	32 lbs.
Onion Sets	32 lbs.
Orchard Grass	14 lbs.
Peach Pits	48 lbs.
Peas, Smooth	60 lbs.
Peas, Wrinkled	56 lbs.
Perennial Rye	20 lbs.
Potatoes	60 lbs.
Rape	60 lbs.
Rye	56 lbs.
Red Top	14 lbs.
Red Top, Solid Seed	42 lbs.
Timothy	45 lbs.
Vetches	70 lbs.
Wheat	60 lbs.

## QUANTITY OF SEEDS REQUIRED

	Quantity per Acre	
Alfalfa	10 to 20 lbs.	Grass, Meadow Fescue.....25 to 30 lbs.
Alsike	8 to 10 lbs.	Hemp.....40 to 50 lbs.
Artichoke	1 oz. to 500 plants, 6 oz.	Horse Radish Roots.....10,000 to 11,000
Asparagus	1 oz. to 500 plants, 1 lb.	Kale.....1 oz. to 200 ft. of drill, 1 lb.
Barley	100 lbs.	Kohl Rabi.....1 oz. to 150 ft. of drill, 2 lbs.
Beans, dwarf	1 lb. to 100 ft. drill, 50 lbs.	Kaffir Corn.....6 to 10 lbs.
Beans, Pole	1 lb. to 150 hills, 25 lbs.	Leek.....1 oz. to 100 ft. of drill, 4 lbs.
Beet, garden	1 oz. to 50 ft. of drill, 5 lbs.	Lettuce.....1 oz. to 100 ft. of drill, 3 lbs.
Beet, sugar or mangel	5 lbs.	Melon, Musk.....1 oz. to 60 hills, 2 to 3 lbs.
Broccoli	1 oz. to 2,000 plants, 4 oz.	Melon, Water.....1 oz. to 30 hills, 3 to 4 lbs.
Brussels Sprouts	1 oz. to 2,000 plants, 4 oz.	Millet.....20 to 30 lbs.
Broom Corn	8 to 12 lbs.	Nasturtium.....1 oz. to 50 ft. of drill, 15 lbs.
Buckwheat	50 to 60 lbs.	Oats.....75 to 100 lbs.
Cabbage	1 oz. to 2,000 plants, 8 oz.	Okra.....1 oz. to 100 ft. of drill, 8 lbs.
Carrot	1 oz. to 125 ft. of drill, 3 lbs.	Onion.....1 oz. to 100 ft. of drill, 4 to 5 lbs.
Cauliflowers	1 oz. to 3,000 plants, 4 oz.	Onions, for sets.....30 to 80 lbs.
Celery	1 oz. to 5,00 plants, 4 oz.	Onion Sets.....1 lb. to 40 ft. of drill, 400 lbs.
Cheat	100 lbs.	Parsley.....1 oz. to 100 ft. of drill, 3 lbs.
Chicory	1 oz. to 100 ft. of drill, 4 lbs.	Parsnip.....1 oz. to 100 ft. of drill, 3 lbs.
Clover, White; Alsike and Bokhara	6 to 10 lbs.	Peas, garden 1 lb. to 50 ft. of drill, 200 lbs.
Clover, Red, Mammoth, and Crimson	8 to 15 lbs.	Peas, field.....90 to 150 lbs.
Collards	1 oz. to 2,000 plants, 4 oz.	Pepper.....1 oz. to 1,500 plants
Corn, sweet	1 lb. to 200 hills, 15 lbs.	Potatoes.....400 to 600 lbs.
Corn, field	12 to 20 lbs.	Pumpkin.....1 oz. to 30 hills, 3 to 4 lbs.
Corn, pop	8 to 10 lbs.	Radish.....1 oz. to 100 ft. of drill, 10 lbs.
Cress	1 oz. to 150 ft. of drill, 2 lbs.	Rape, Dwarf Essex.....3 to 5 lbs.
Cucumber	1 oz. to 10 hills, 2 to 3 lbs.	Rutabaga.....1 oz. to 150 ft. of drill, 2 to 3 lbs.
Egg Plant	1 oz. to 2,000 plants, 4 oz.	Rye.....90 to 120 lbs.
Endive	1 oz. to 400 ft. of drill, 4 lbs.	Salsify.....1 oz. to 50 ft. of drill, 8 lbs.
Emmer	100 lbs.	Sorghum, in hills.....20 lbs.
Flax, for seed, 30 lbs.; for fibre	50 lbs.	Sorghum, in drills or broadcast.....
Grass, lawn, mixed, 1 lb. to 250 sq ft.	145 lbs.	60 to 90 lbs.
Grass Kentucky Blue, Canadian Blue	40 lbs.	Spinach.....1 oz. to 75 ft. of drill, 8 lbs.
Grass, Timothy	12 to 40 lbs.	Squash, bush.....1 oz. to 25 hills, 8 lbs.
Grass, Red Top in chaff	30 to 40 lbs.	Squash, vine.....1 oz. to 12 hills, 2 lbs.
Grass, Red Top, solid seed	10 to 12 lbs.	Sunflower.....8 lbs.
Grass, Rye Grass, English and Italian	40 to 50 lbs.	Tobacco.....1 oz. to 3,000 plants, 3 oz.
	Quantity per Acre	Tomato.....1 oz. to 2,000 plants, 4 oz.
		Turnip.....1 oz. to 150 ft. of drill, 2 lbs.
		Wheat.....90 to 120 lbs.

## NUMBER OF PLANTS PER ACRE AT VARIOUS DISTANCES

In planting Trees the greater distance should be given in the richer soils.

Distance Apart	Method	Square	Triang-
		Method	ular
1 ft. apart each way	43,560	50,300	
2 ft. apart each way	10,890	12,575	
4 ft. apart each way	2,722	3,143	
6 ft. apart each way	1,210	1,397	
9 ft. apart each way	537	620	
10 ft. apart each way	435	502	

Distance Apart	Method	Square	Triang-
		Method	ular
15 ft. apart each way	193	223	
16 ft. apart each way	170	196	
20 ft. apart each way	108	125	
25 ft. apart each way	70	80	
30 ft. apart each way	48	55	
40 ft. apart each way	27	31	

# GLADIOLUS

Most satisfactory summer flowering bulb, needing so little attention and as well in almost any soil. The bulbs should be set from 3 to 6 inches apart in rows, or, for massing, 6 inches apart and about 4 inches deep.

**AUGUSTA**—A lovely and useful variety; pure white with blue anthers. **Doz. 60c**

**AMERICA**—Conceded to be one of the finest varieties for cutting or bedding ever sent out. color is a beautiful soft flesh pink; orchid like in its coloring and texture. **Doz., 60c.**

**BARON HULET or Blue King**—A really fine blue gladiolus, its color a rich royal violet blue, very effective when cut and raised in conjunction with Sulphur King or other yellow variety.

**BRENTLEYENSIS**—Vermillion scarlet, late blooming, one of the old standards. **Doz., 60c.**

**MRS. FRANCIS KING**—A striking shade of light scarlet or flame color; one of the most effective both in the border and when cut. **Doz., 60c.**

**PANAMA**—A favorite wherever high grade varieties are grown. It is similar to and has all the good qualities of the America, but in color is a rich rose pink; one of the finest. **Doz., 60c.**

**PRINCIPINE**—Bright red with pure white blotches on lower petals. **Doz., 60c.**

## KAUFMAN'S SUPERB SURPRISE

Mixture of Garden Annuals and Wild Flowers. This is not a mixture of wild flowers, but of garden annuals, with a few wild species added. It contains a large number of different kinds, all of these quite hardy and varieties that will grow with the least amount of care and produce quantities of flowers for a long period. Indeed there are so many kinds appearing in endless succession that it is a continual surprise from the time the first flower begins to blossom. We recommend it for vacant lots and waste pieces of ground. **Pkt., 5c.**

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## HOLLAND BULBS

We will have a full line of Holland Bulbs for the Fall Season of 1920 of the following:

**HYACINTHS**—Gertrude, Queen of Pinks, Grand Maitre, L'Innocence, La Victoria, Enchantress, King of the Blues, Yellow Hammer, La Grandesse.

**EARLY TULIPS**—Isabella, Garrick, Goethe, Artus, Cramoise Brilliant, Gold Finch, Keiserkroon (President Wilson), Prince of Austria, and Early Single Mixed.

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